

FIG. 1
(Prior Art)

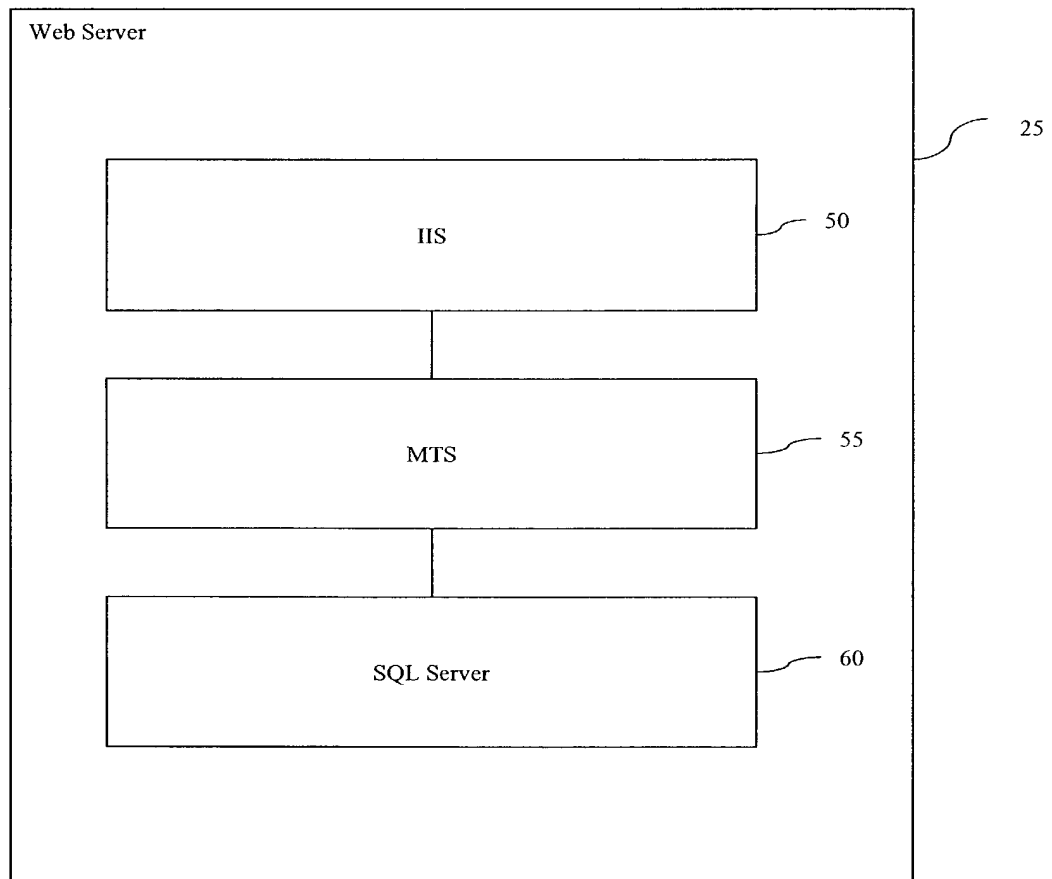


FIG.2
(Prior Art)

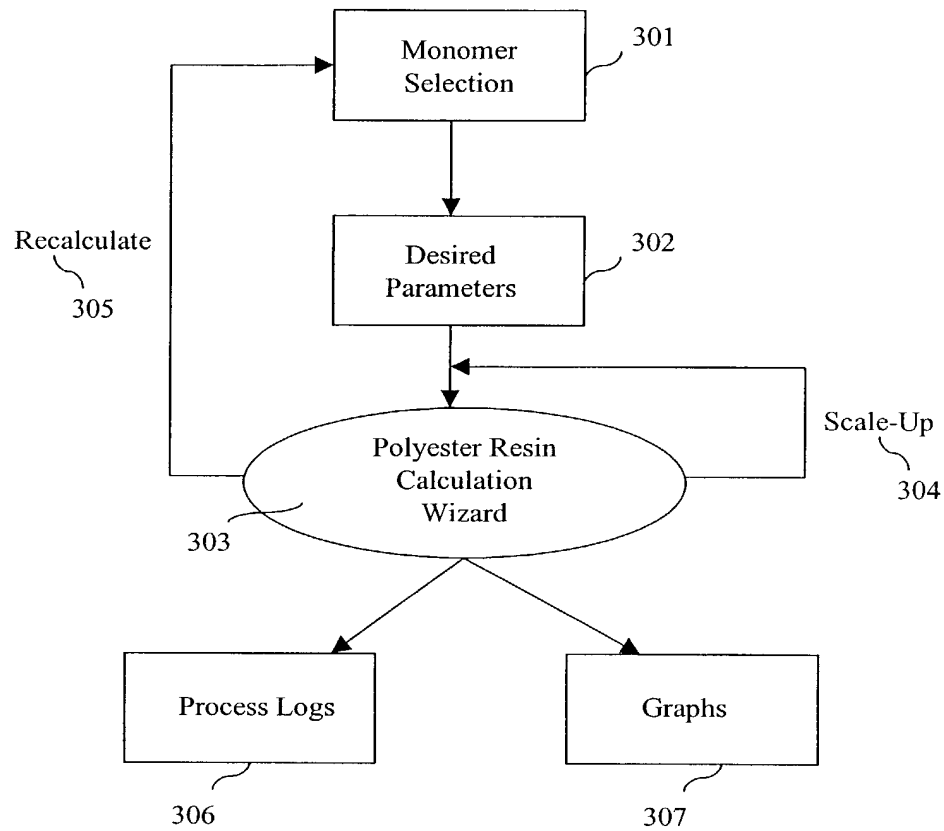


FIGURE 3A

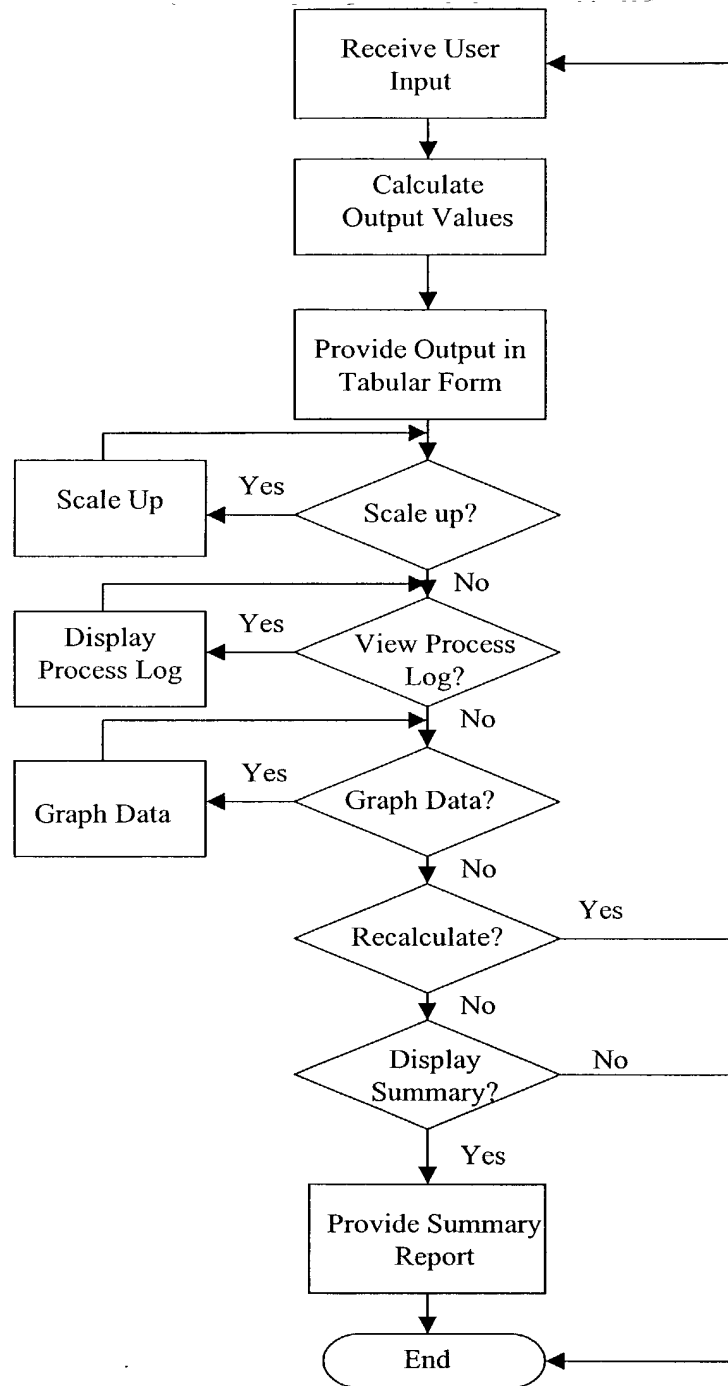


FIGURE 3B

2 Polyester Resin Calculation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

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http://www.eastman.com/Wizards/ResinCalculationProgram/RCPMonomerSelect.asp

Wizard **Polyester Resin Calculation** **EASTMAN**

Contact Us 391 How To Use The Wizard 312 Close Window 393

***=Required Field**

Designated Resin Name 310

Monomer Selection 314

Click here to Add Unlisted Monomer 390

Excess: 352

1,2-epoxypropane 354

1,2-Propylene Glycol

1,3-Butanediol

1,3-Cyclohexanedicarboxylic Acid

1,4-Butanediol

Add Selected Monomers to the table below 316

Name 330	Molecular Weight 332	Acid Groups 334	Hydroxyl Groups 336	Condensate from the Acid 338	Condensate from the Hydroxyl 340	Weight Fraction Monomer in Resin 346	Weight Fraction Molety In Monomer 348	Raw Material Cost 350
1,6-Hexanediol	118.16	0	2	0	0	0.847676	0	Delete 320A
Naphthalenedicarboxylic Acid 322	216.11	2	0	0	0	0.916709	0	Delete 320B

Clear all Monomer Selected 356

Click here to Continue

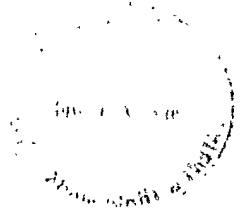
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331 333 335

FIGURE 3C

FIGURE 3D

10039482 . 042502

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Address http://www.eastman.com/Wizards/ResinCalculationProgram/RCFMonomerConst.asp

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Return To Selection Screen

Parameters for Hydroxyl Excess Resins

*** 0 Parameters Remain Unspecified *** HELP?

Excess Hydroxyl Equivalents % 100 Hydroxyl Equivalent Weight 360

Patton (K) Constant 370 Number Average Molecular Weight 362

Use Acid Hydroxyl Ratios C Yes C No 380

Weight Ratios & Weight % C Charge C Final 382

Batch Size 100 376

Charge C Yield 378

Monomer Molar Ratios Weight Ratios Weight %

1,6-Hexanediol

2,6-Naphthalenedicarboxylic Acid

Clear all Parameters 386

Click here to Continue 384

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FIGURE 3E

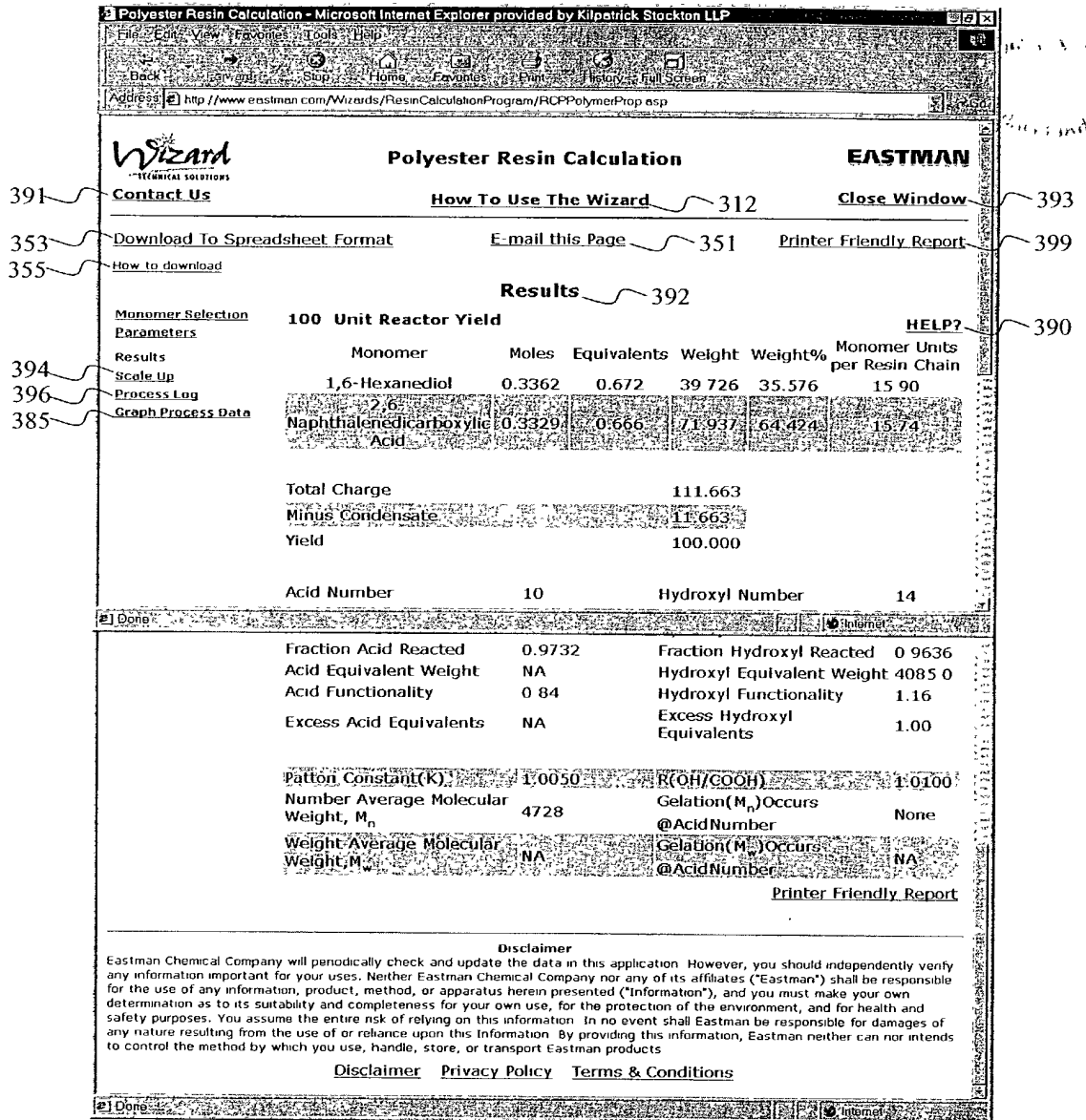


FIGURE 3F

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Address: <http://www.eastman.com/Wizards/ResinCalculationProgram/RCPPolymerProp.asp>

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Results 392

[Monomer Selection](#) [Parameters](#) [Results](#) [Scale Up](#) [Process Log](#) [Graph Process Data](#)

3000 Unit Reactor Charge

Monomer	Moles	Equivalents	Weight	Weight%	Monomer Units per Resin Chain
1,6-Hexanediol	9.0326	18.065	1067.292	35.576	15.90
2,6-Naphthalenedicarboxylic Acid	8.9432	17.886	1932.708	64.424	15.74
Total Charge			3000.000		
Minus Condensate			313.350		
Yield			2686.650		

HELP?

Acid Number	10	Hydroxyl Number	14
Fraction Acid Reacted	0.9732	Fraction Hydroxyl Reacted	0.9636
Acid Equivalent Weight	NA	Hydroxyl Equivalent Weight	4085.0
Acid Functionality	0.84	Hydroxyl Functionality	1.16
Excess Acid Equivalents	NA	Excess Hydroxyl Equivalents	1.00
Patton Constant (K)	1.0050	R(OH/COOH)	1.0100
Number Average Molecular Weight, M_n	4728	Gelation (M_n) Occurs @ Acid Number	None
Weight Average Molecular Weight, M_w	NA	Gelation (M_w) Occurs @ Acid Number	NA

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FIGURE 3G

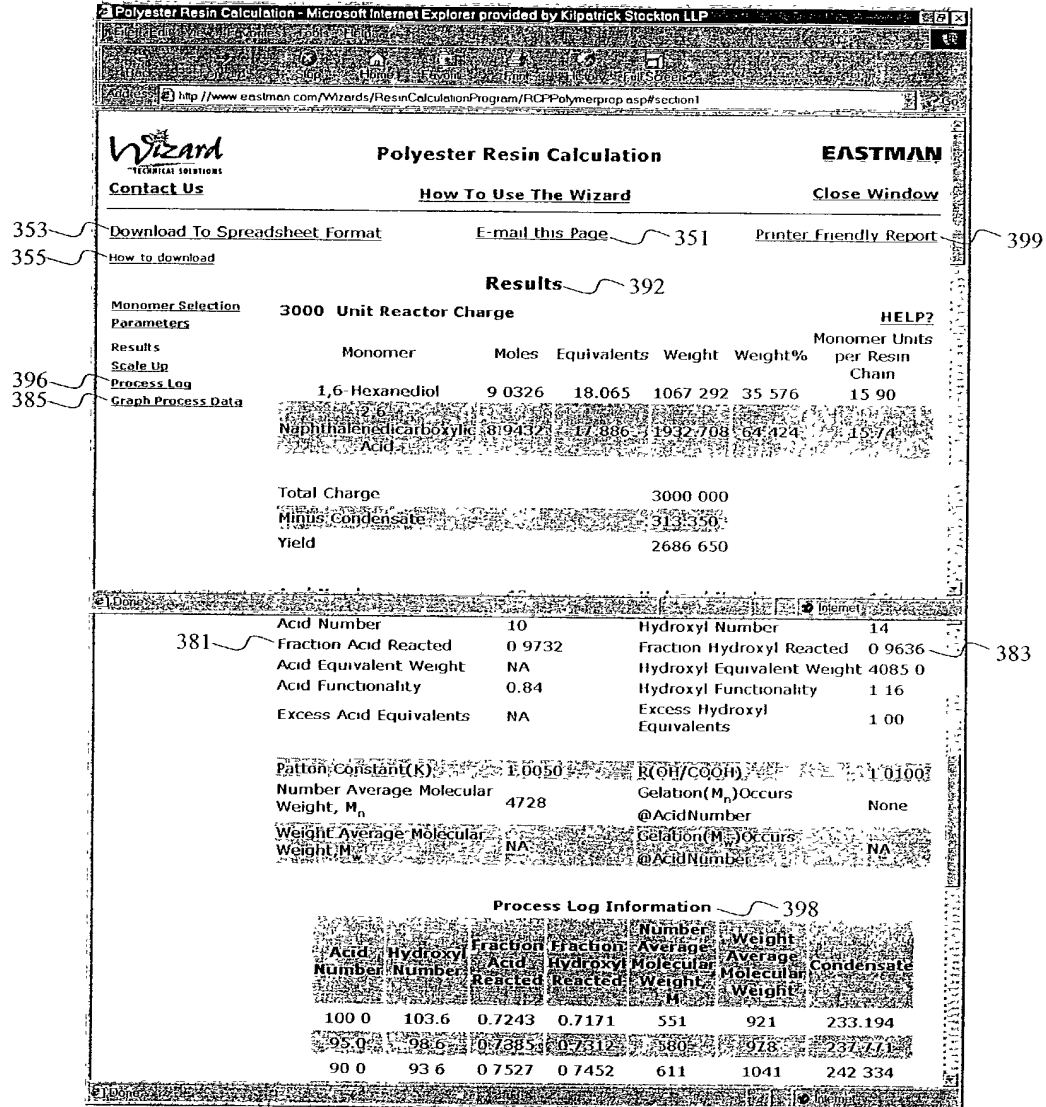


FIGURE 3H

Graph Process Data - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

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Address http://www.eastman.com/Wizards/ResinCalculationProgram/RCPGraphInfo.asp?Excess=True

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Polyester Resin Calculation

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Graph Process Data

Select Parameters to Graph

Monomer Selection
Parameters
Results
Scale Up
Process Log
Graph Process Data

HELP?

Enter Acid Number Range

100 0 5
Upper Lower StepSize

One X coordinate and two Y coordinates may be selected.

387

Parameters	X-Axis	Y-Axis
Acid Number	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hydroxyl Number	<input type="checkbox"/>	<input type="checkbox"/>
Fraction Acid Reacted	<input type="checkbox"/>	<input type="checkbox"/>
Fraction Hydroxyl Reacted	<input type="checkbox"/>	<input type="checkbox"/>
Number Average MW	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Weight Average MW	<input type="checkbox"/>	<input type="checkbox"/>
Condensate	<input type="checkbox"/>	<input type="checkbox"/>

Create Graph

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Done Internet

FIGURE 3I

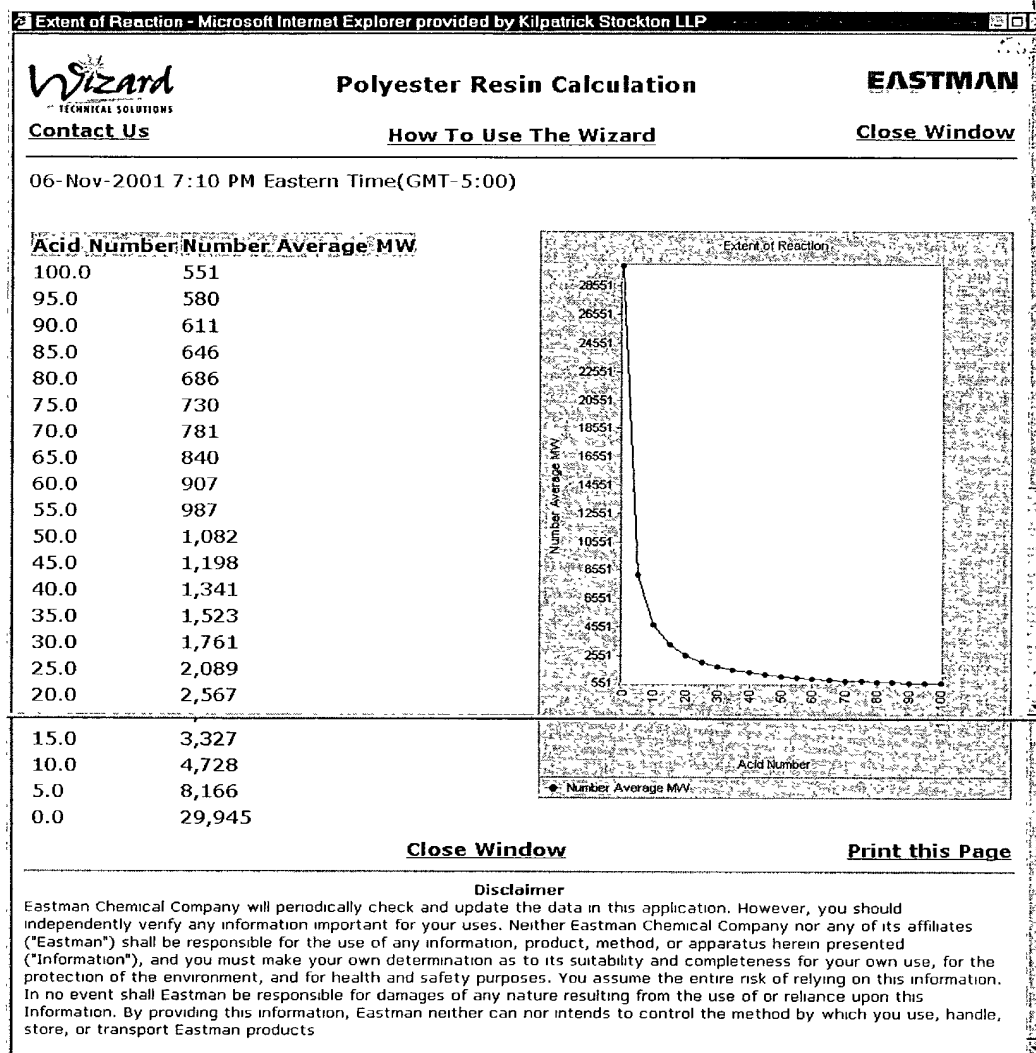


FIGURE 3J

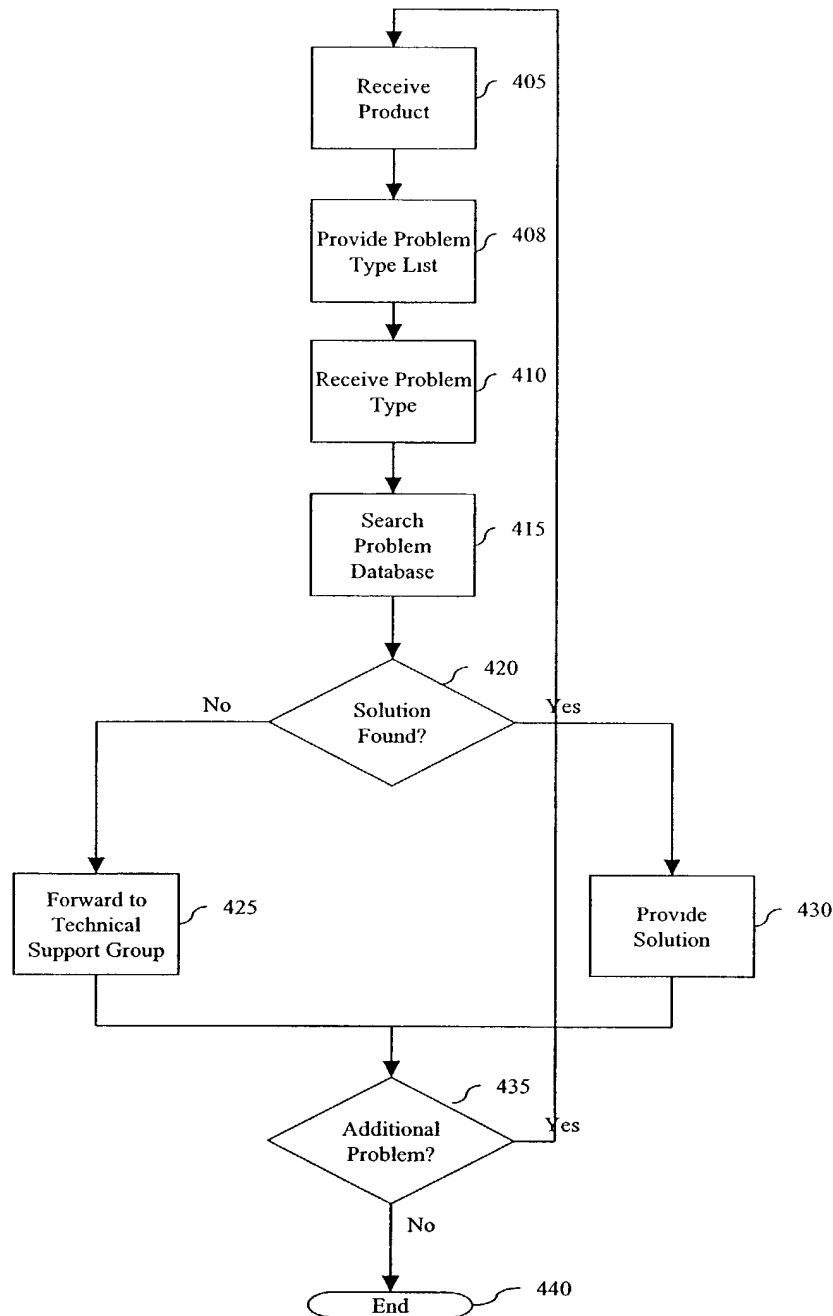


FIG. 4

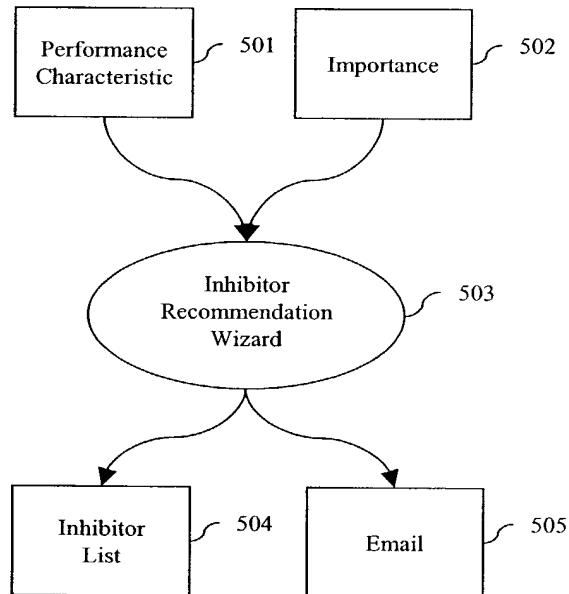
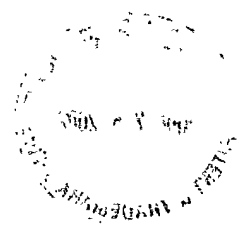


FIG. 5A

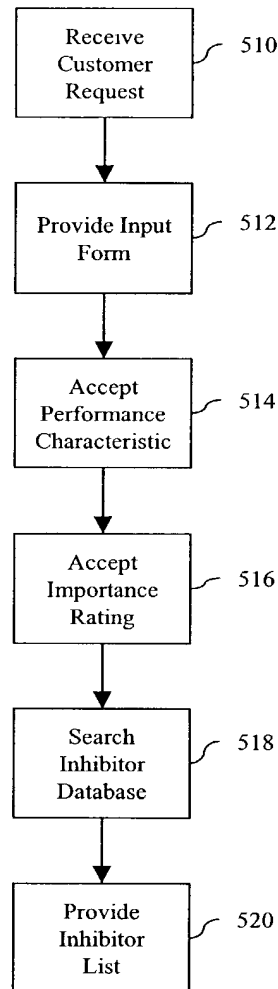


FIG. 5B

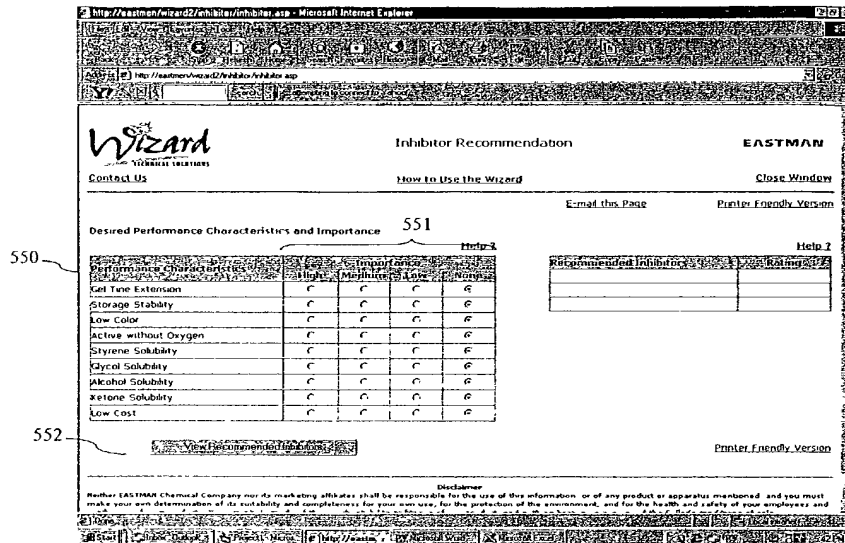


FIG. 5C

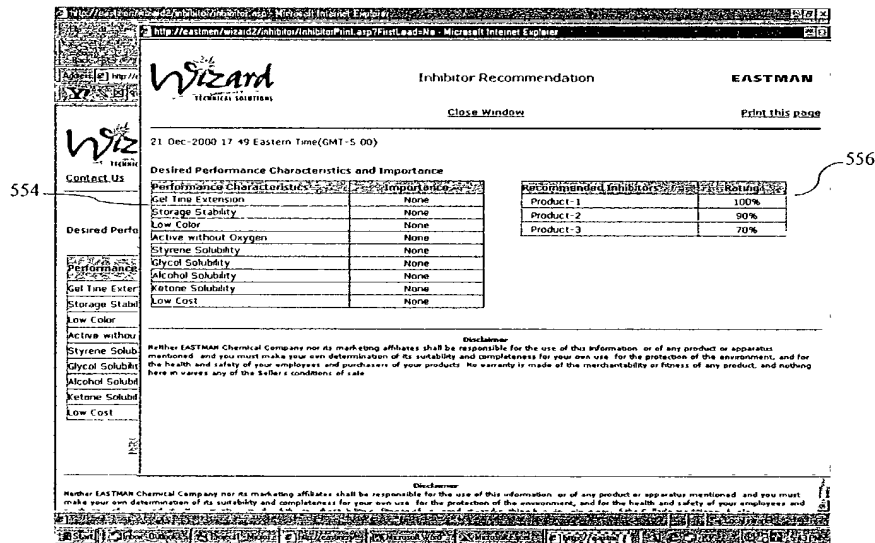


FIG. 5D

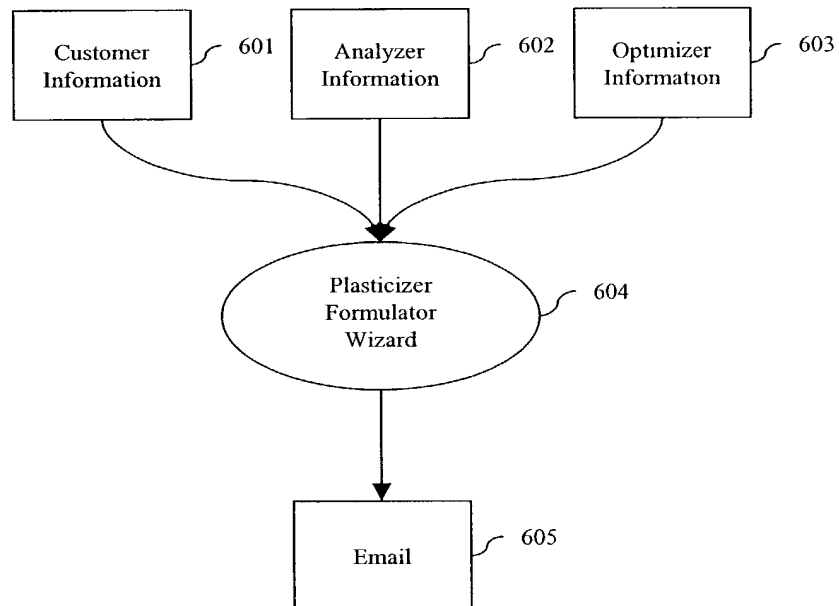
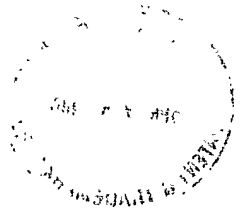


FIG. 6A

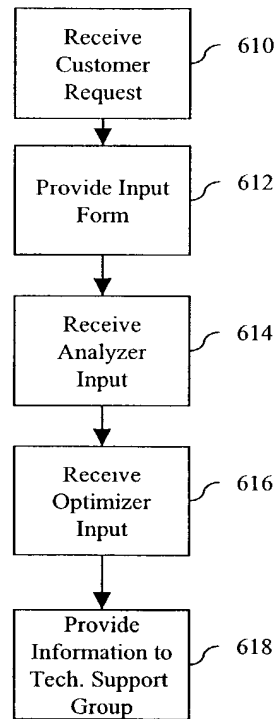
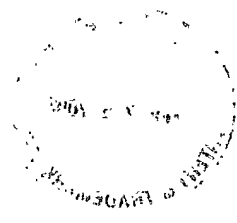
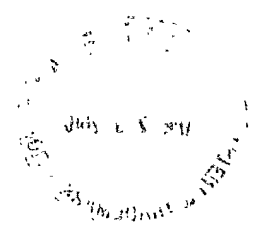


FIG. 6B



Plasticizer Formulator - Microsoft Internet Explorer

http://customers.wizard.com/Plasticizer/Formulator.asp

Wizard Plasticizer Formulator **EASTMAN**

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* = Required field

620 ANALYZER 621 622 Return To The Customer Information

Ingredients (Must input a minimum of one PVC Resin and one Plasticizer)	PHR (Parts per Hundred Resin) Required field to predict physical properties	US Dollar/Pound Required field to calculate formulation cost
PVC Resin 1		
PVC Resin 2		
Plasticizer 1		
Plasticizer 2		
Plasticizer 3		
Plasticizer 4		
Plasticizer 5		
Plasticizer 6		
Plasticizer 7		
Plasticizer 8		
Plasticizer 9		
Plasticizer 10		
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Plasticizer 98		
Plasticizer 99		
Plasticizer 100		

FIG. 6C

Plasticizer Formulator - Microsoft Internet Explorer

http://customers.wizard.com/Plasticizer/Formulator.asp

Wizard Plasticizer Formulator **EASTMAN**

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* = Required field

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Comments
Enter your comments for Analyzer

OPTIMIZER

630 Physical Property Selection *

631

632

Physical Property 633 634

Ingredient Names (Must input a minimum of one PVC Resin and one Plasticizer)	Cost/Pound Required field to calculate formulation cost
PVC Resin 1	
PVC Resin 2	
Plasticizer 1	
Plasticizer 2	
Plasticizer 3	
Plasticizer 4	
Plasticizer 5	
Plasticizer 6	
Plasticizer 7	
Plasticizer 8	
Plasticizer 9	
Plasticizer 10	
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Plasticizer 98	
Plasticizer 99	
Plasticizer 100	

FIG. 6D

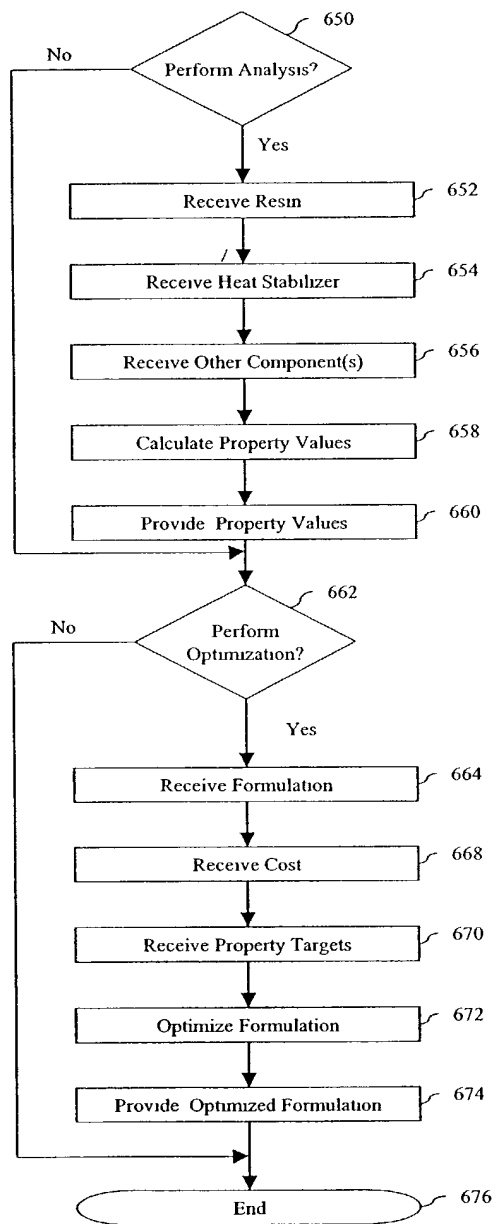
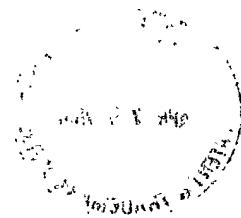


FIG. 6E

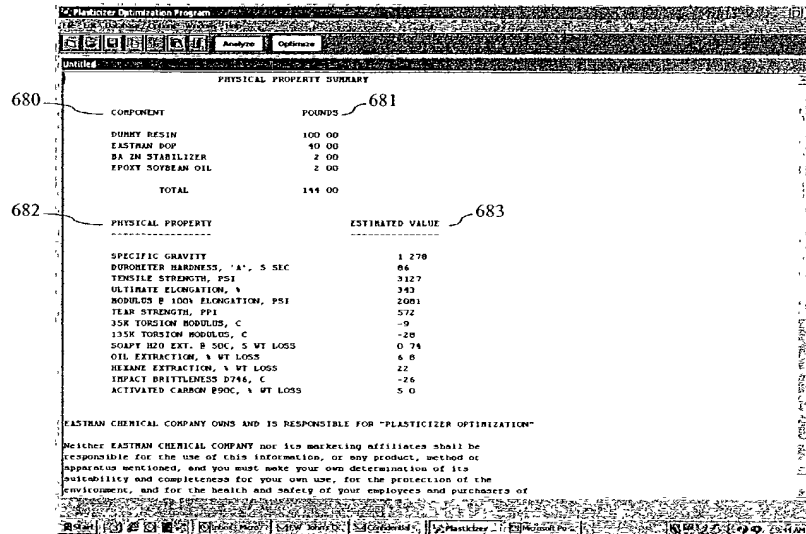
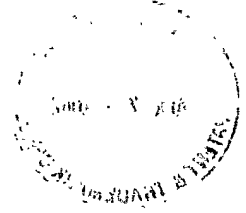


FIG. 6F

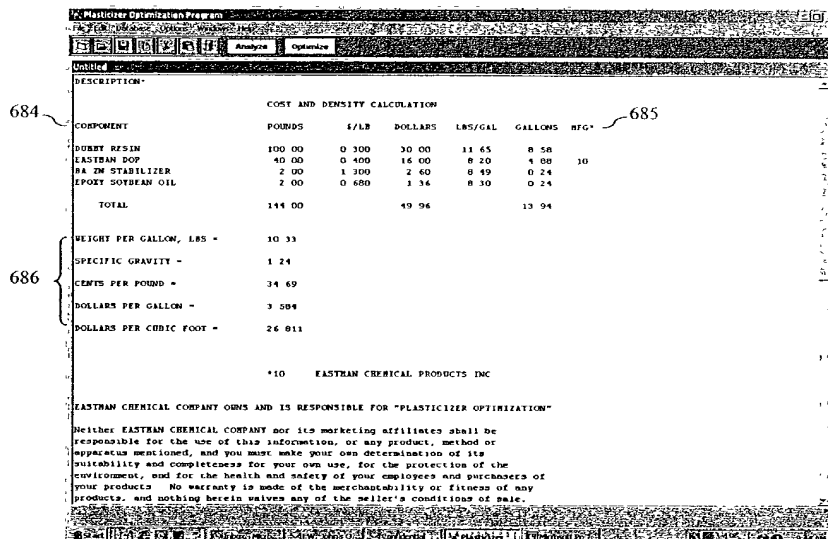


FIG. 6G

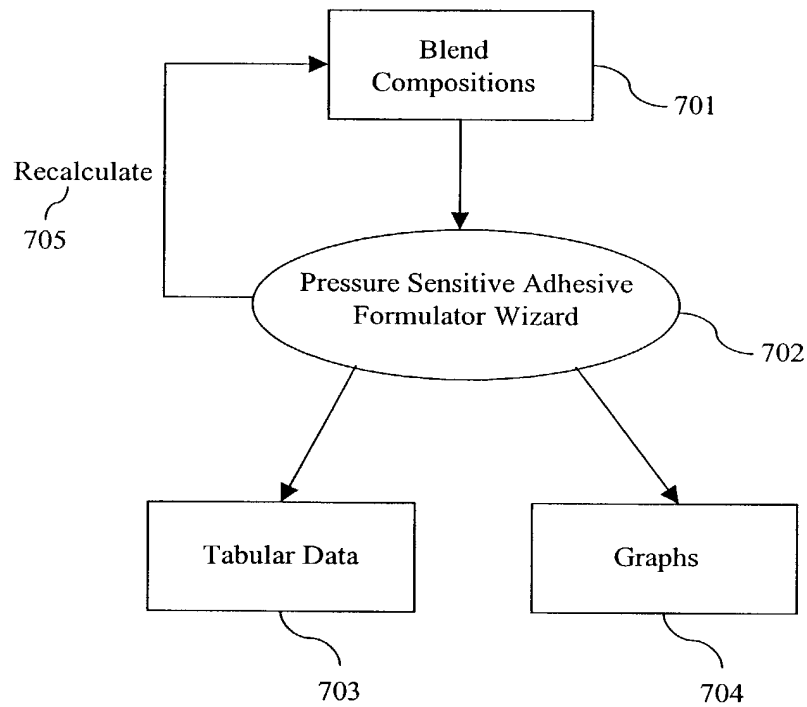


FIGURE 7A

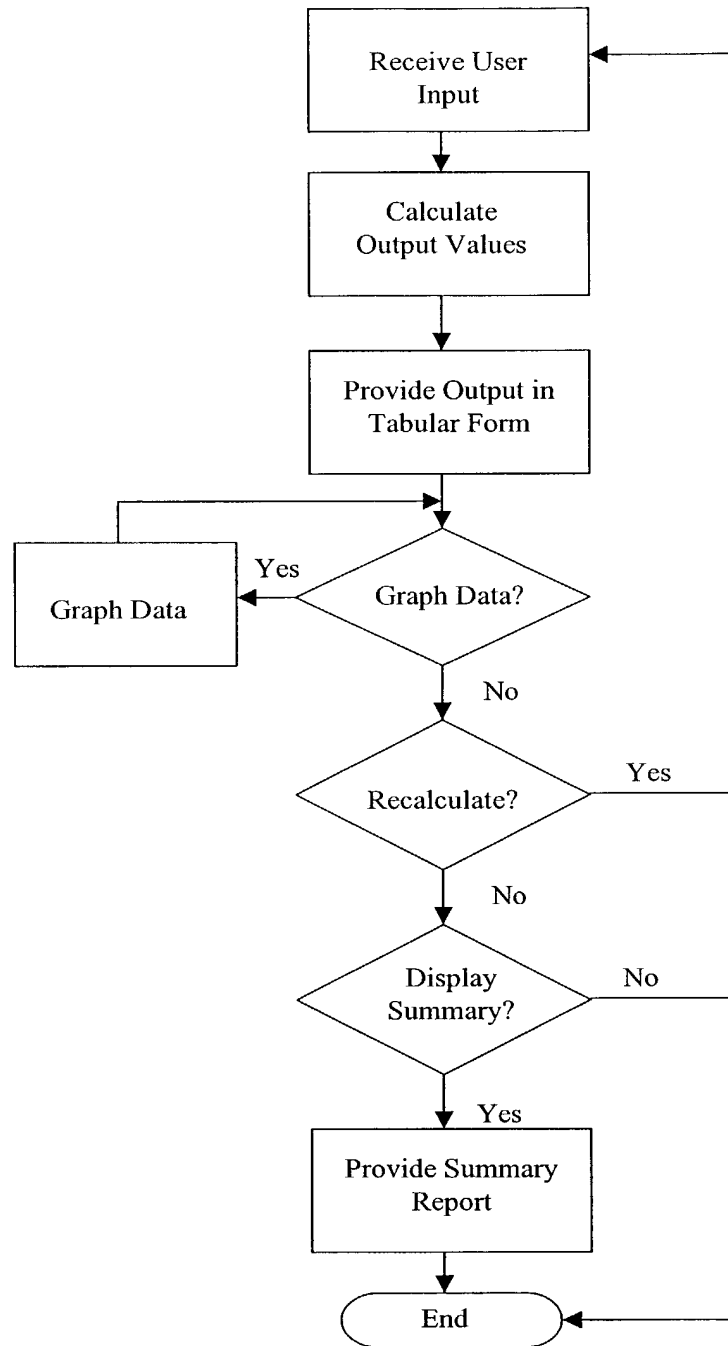


FIGURE 7B

10039482 . 042502

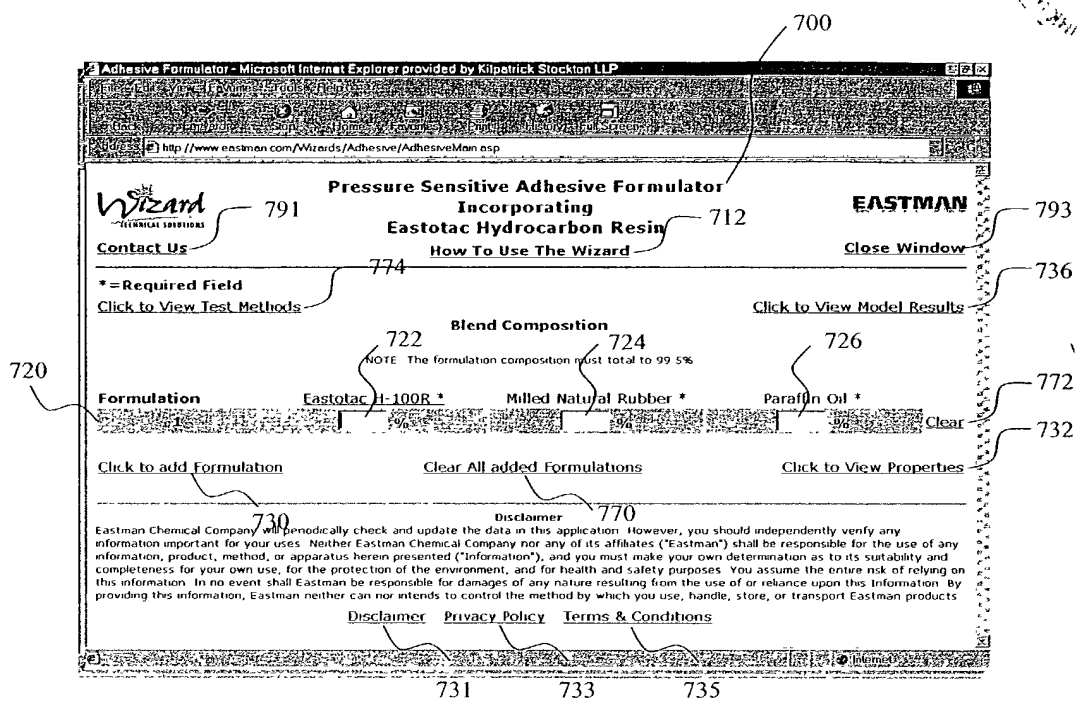


FIGURE 7C

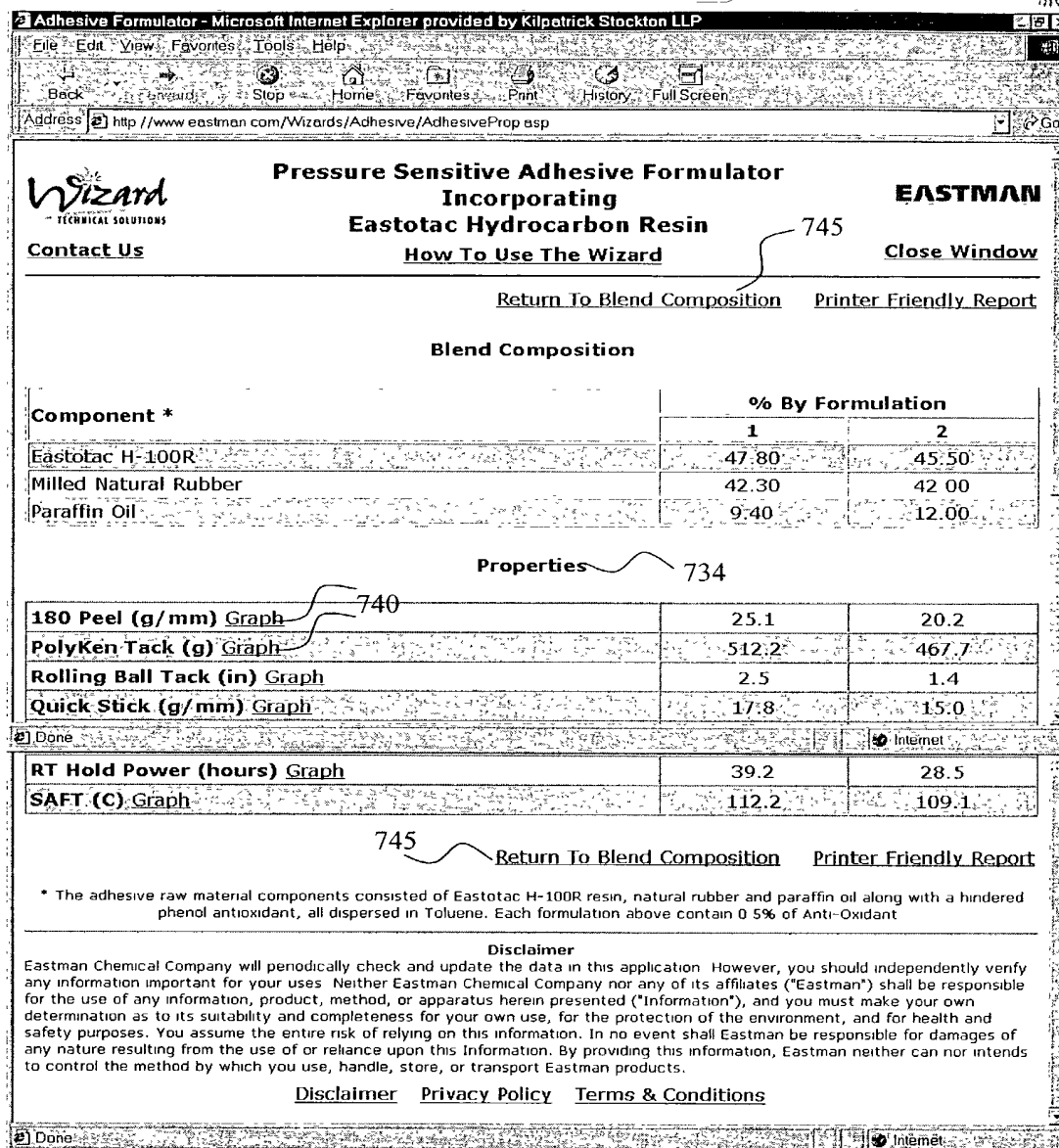


FIGURE 7D

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Inventors: BASSETT et al.
Express Mail No. EV 032 196 431 US

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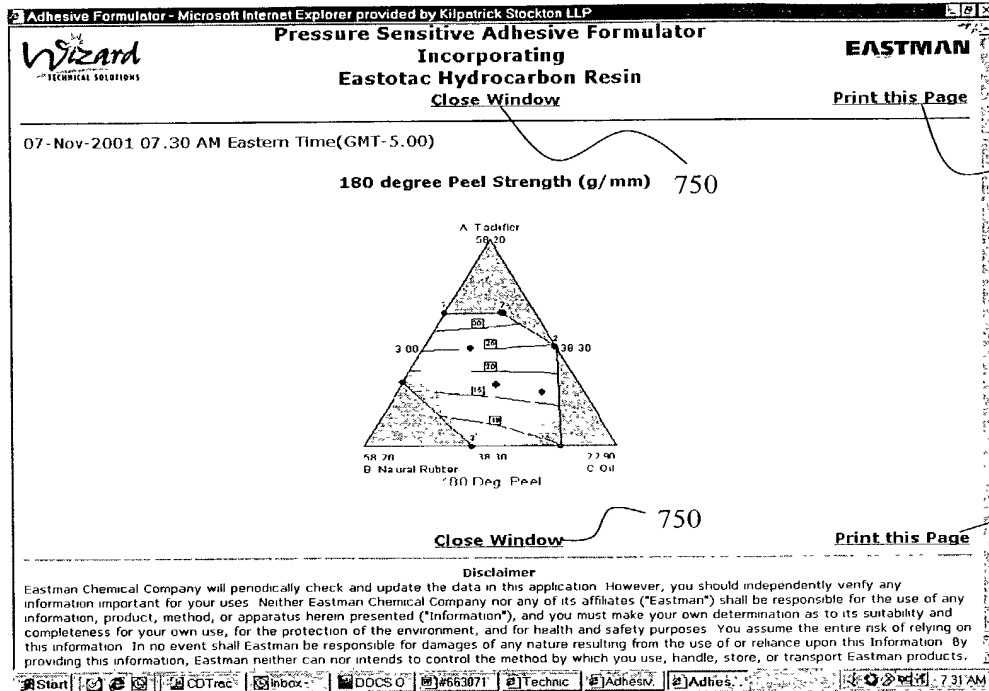
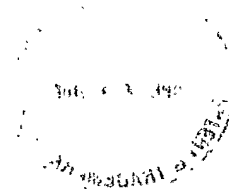


FIGURE 7E

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SOFTWARE ENABLED WIZARDS
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Express Mail No. EV 032 196 431 US

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Adhesive Formulator - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

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Address http://www.eastman.com/Wizards/Adhesive/AdhesivePropTestData.asp

Pressure Sensitive Adhesive Formulator
Incorporating
Eastotac Hydrocarbon Resin

EASTMAN

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Formulation & Testing Data

Blend Composition

Component *	% By Formulation												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Eastotac H-100R	51.1	47.8	38.3	38.3	44.5	38.3	47.8	51.1	51.1	44.2	43.5	51.1	47.7
Milled Natural Rubber	40.9	38.3	49.7	42.8	52.0	49.7	38.3	45.4	40.9	44.9	41.6	45.4	45.1
Paraffin Oil	7.5	13.4	11.5	18.5	3.0	11.5	13.4	3.0	7.5	10.4	14.4	3.0	6.7

Properties

180 Peel (g/mm) Graph	32.7	24.7	7.4	8.6	15.6	6.0	24.1	33.1	34.4	17.4	17.4	37.2	23.3
PolyKen Tack (g) Graph	636	460	365	386	399	269	453	569	533	411	458	616	591
Rolling Ball Tack (in) Graph	5.7	1.7	0.7	0.6	1.7	0.8	1.8	6.4	2.7	1.0	1.0	7.1	1.3
Quick Stick (g/mm) Graph	23.2	19.6	6.5	8.4	11.0	6.3	18.2	20.3	22.9	12.6	13.3	23.1	16.8
RT Hold Power (hours) Graph	35.6	13.7	48.8	10.5	>100	64.4	14.0	70.8	33.0	44.6	15.2	86.2	58.6
SAFT (C) Graph	105.6	90.5	121.2	94.2	126.7	115.0	92.6	119.1	101.5	120.4	103.8	126.2	120.1

[Return To Blend Composition](#) [Printer Friendly Report](#)

* The adhesive raw material components consisted of Eastotac H-100R resin, natural rubber and paraffin oil along with a hindered phenol antioxidant, all dispersed in Toluene. Each formulation above contain 0.5% of Anti-Oxidant.

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FIGURE 7F

Appln. Ser. No. 10/039,482
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 Express Mail No. EV 032 196 431 US

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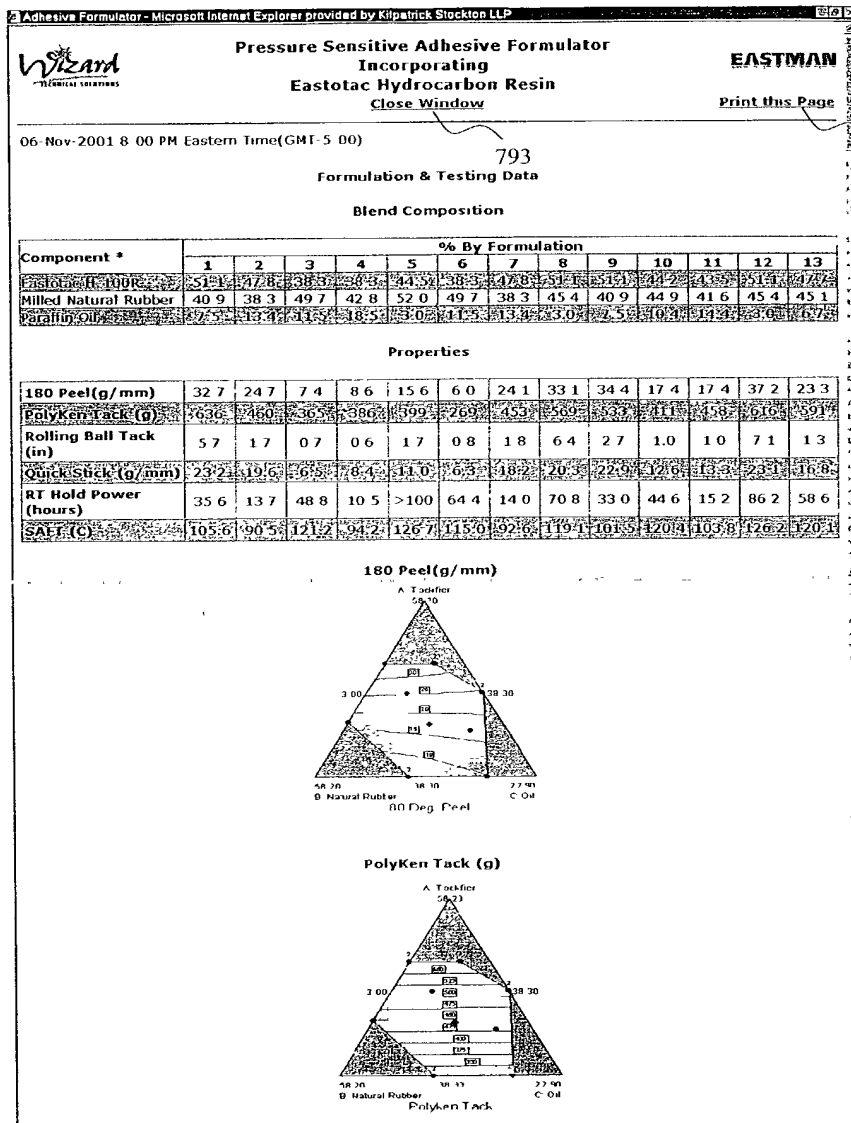
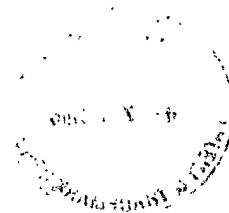


FIGURE 7G

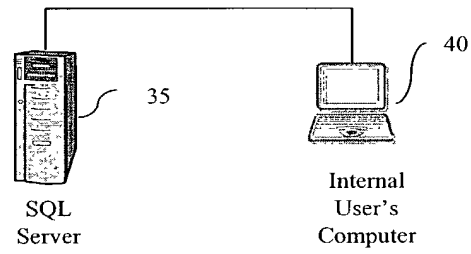
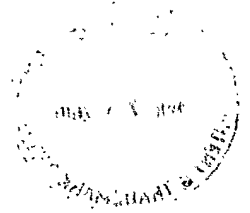


FIG. 8

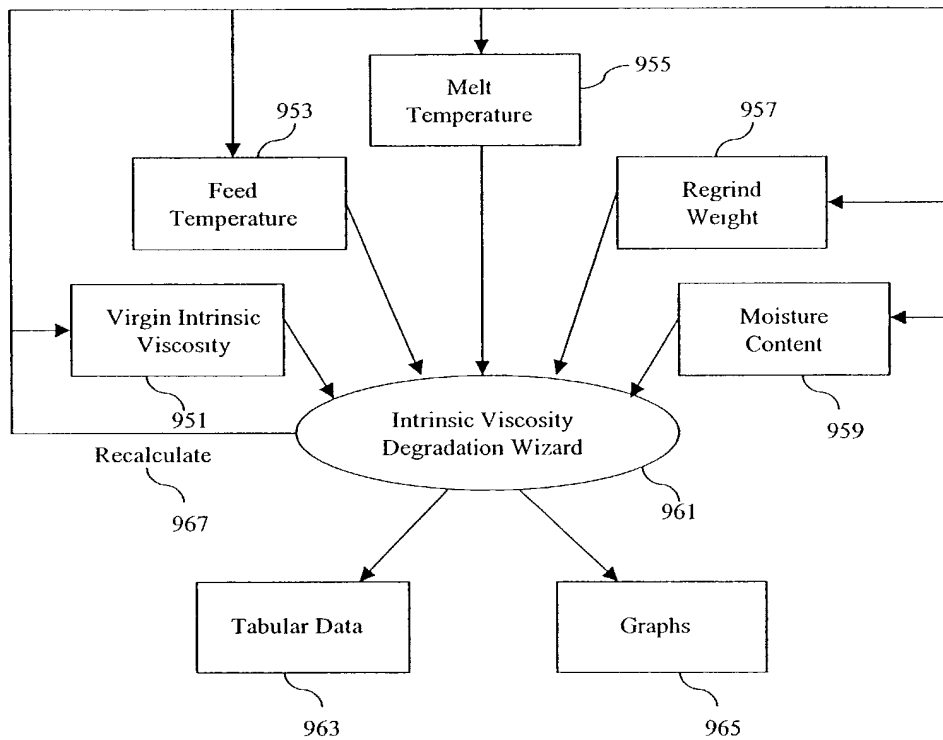


FIGURE 9A

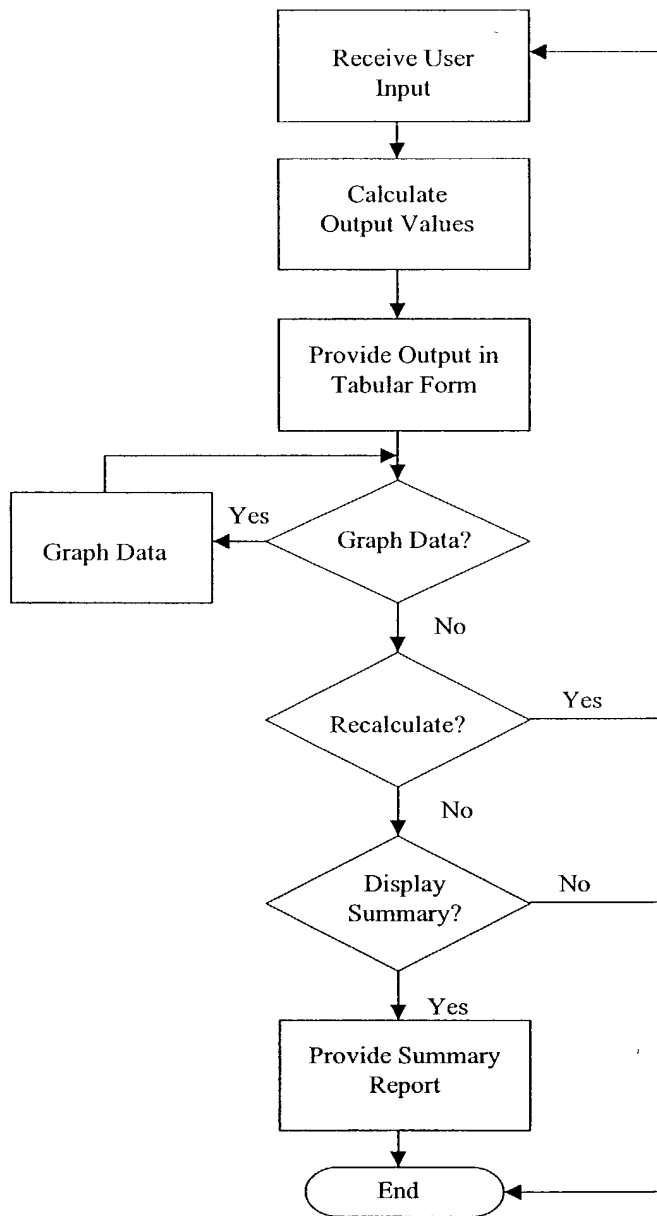


FIGURE 9B

Appln. Ser. No. 10/039,482
SOFTWARE ENABLED WIZARDS
Inventors: BASSETT et al.
Express Mail No. EV 032 196 431 US

10039482, 042502

Intrinsic Viscosity Degradation Model For Eastapak PET - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

http://www.eastman.com/Wizards/IVDegradation/IVDegradInputs.asp

Wizard Intrinsic Viscosity Degradation Model For Eastapak PET **EASTMAN**

Contact Us 991 How To Use The Wizard 990 Close Window 993

* = Required Field

Input Parameters: 902

903 Virgin Resin Intrinsic Viscosity: 1.00 dL/g 912

904 Pellet Feed Temperature: * 30 °C

905 Melt Temperature: 275 °C

906 Virgin Resin Moisture Content: * 0.05 wt%

Regrind Ratio: 5 wt%

Regrind Moisture: * 0.07 wt%

990

Predicted Effect on Intrinsic Viscosity

Click the appropriate link to view the graph

999

a. Regrind Effect

b. Virgin Resin Intrinsic Viscosity Effect

c. Melt Temperature Effect

d. Feed Temperature Effect

e. Passes Graph

f. Regrind Moisture Effect

g. Virgin Resin Moisture Effect

960

Intrinsic Viscosity: 907A

Intrinsic Viscosity Before Pass 1: 0.000 dL/g

Click here for the Conversion Table 950

Passes Detail:

Passes	Intrinsic Viscosity
Pass 1	0.000
Pass 2	0.000
Pass 3	0.000
Pass 4	0.000
Pass 5	0.000
Pass 6	0.000
Pass 7	0.000
Pass 8	0.000

999

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931 933 935

FIGURE 9C

10039482 .042502

Appln. Ser. No. 10/039,482
SOFTWARE ENABLED WIZARDS
Inventors: BASSETT et al.
Express Mail No. EV 032 196 431 US

Intrinsic Viscosity Degradation Model For Eastapak PET - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

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Address http://www.eastman.com/Wizards/IVDegradation/IVDegradInputs.asp

Wizard TECHNICAL SOLUTIONS **Intrinsic Viscosity Degradation Model For Eastapak PET** **EASTMAN**

Contact Us How To Use The Wizard Close Window

*=Required Field Printer Friendly Report

Input Parameters: **HELP?**

Virgin Resin Intrinsic Viscosity: * 1 dl/g

Pellet Feed Temperature: * 30 °C

Melt Temperature: * 275 °C

Virgin Resin Moisture Content: * 0.005 wt%

Regrind Ratio: * 5 wt%

Regrind Moisture * 0.007 wt%

Predicted Effect on Intrinsic Viscosity

Click the appropriate link to view the graph **HELP?**

920

921 a. Regrind Effect

922 b. Virgin Resin Intrinsic Viscosity Effect

923 c. Melt Temperature Effect

924 d. Feed Temperature Effect

925 e. Passes Graph

926 f. Regrind Moisture Effect

g. Virgin Resin Moisture Effect

Intrinsic Viscosity: 907B

Intrinsic Viscosity before Pass 1: 0.930 dl/g

Click here for the Conversion Table 950

Passes Detail:

Passes	Intrinsic Viscosity
Pass 1	0.926
Pass 2	0.926
Pass 3	0.926
Pass 4	0.926
Pass 5	0.926
Pass 6	0.926
Pass 7	0.926
Pass 8	0.926

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Internet

FIGURE 9D

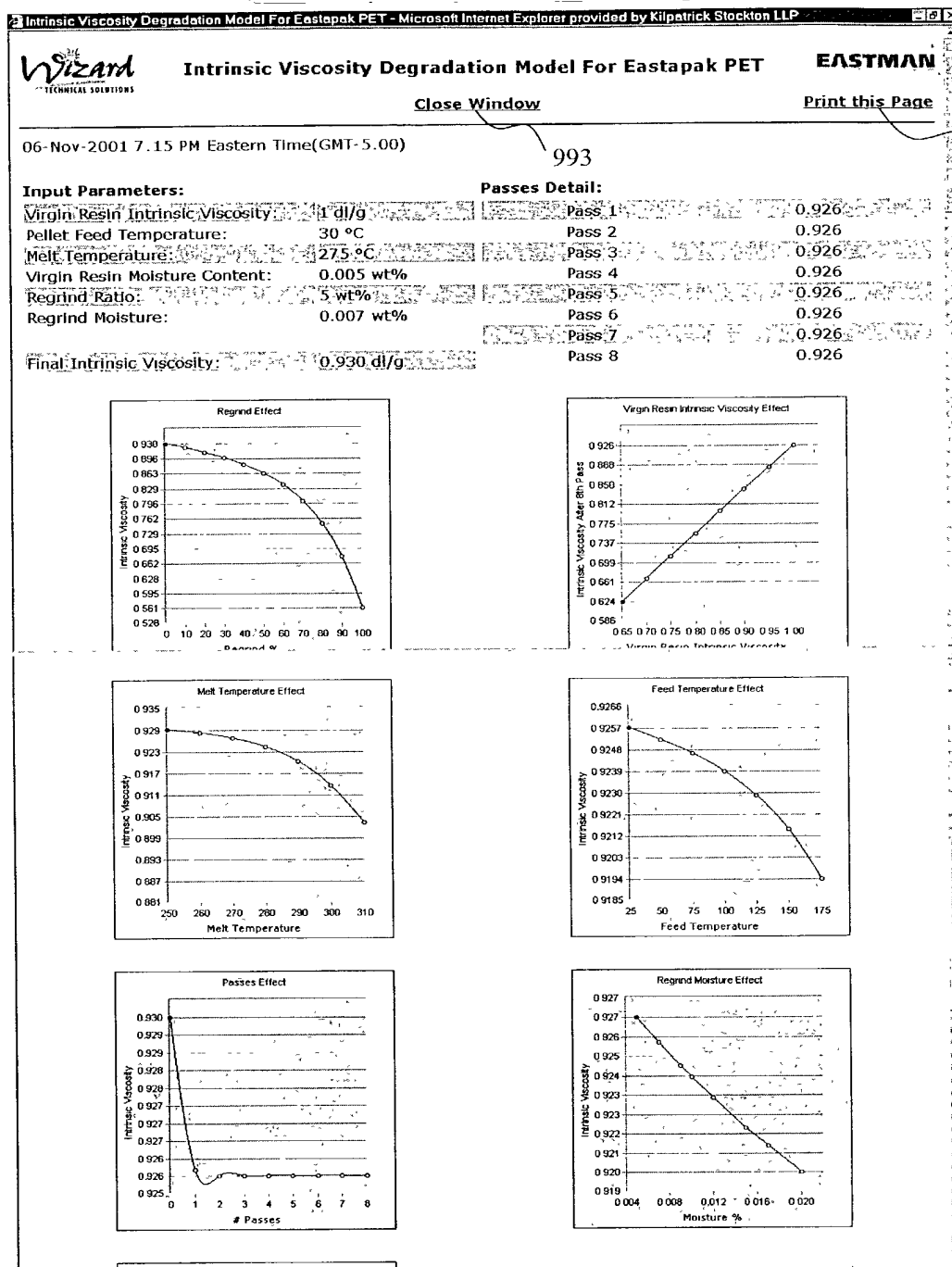


FIGURE 9E

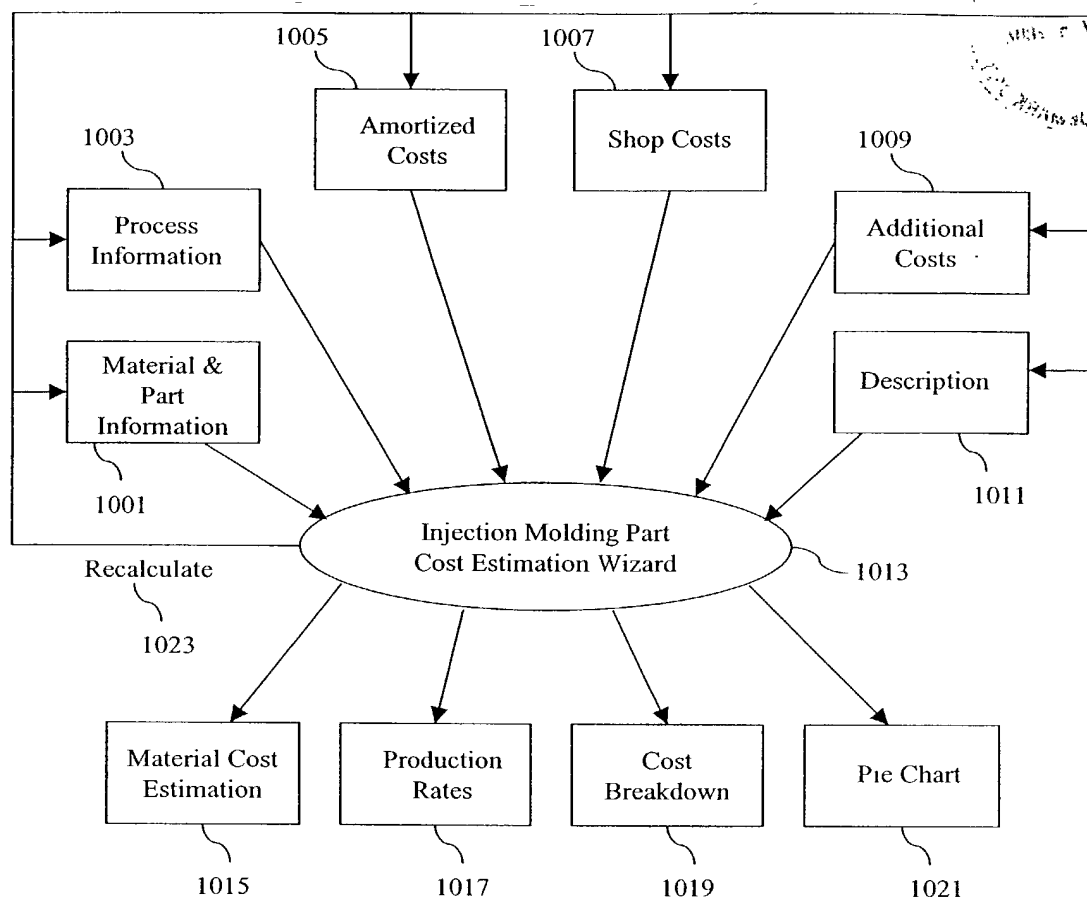


FIGURE 10A

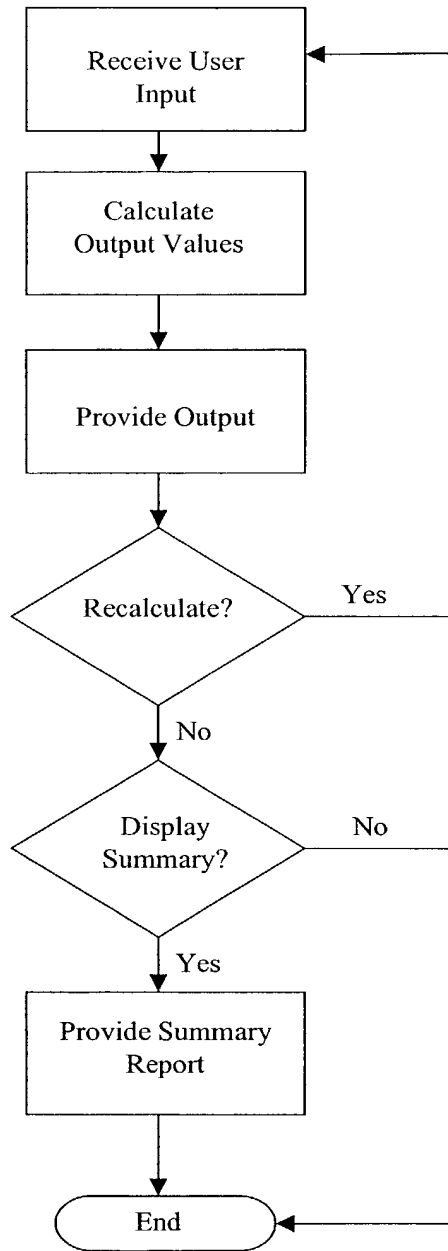
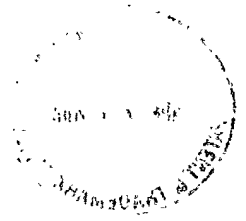


FIGURE 10B

Appln. Ser. No. 10/039,482
SOFTWARE ENABLED WIZARDS
Inventors: BASSETT et al.
Express Mail No. EV 032 196 431 US

10039482 042502



Injection Molding Part Cost Estimation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

http://www.eastman.com/Wizards/PartCostEstimator/PartCostEstimator.asp

Injection Molding Part Cost Estimation **EASTMAN**

How To Use The Wizard **Close Window**

* = Required Field

Input Values **Predicted Values**

Descriptions: **HELP?**

Company **1040**

Name of part. **1042**

Description. **1044**

Material **1046**

Preferred Currency **1048**

Material Cost Estimations: **HELP?**

Material Cost per Part **1090**

Virgin Material Use Rate

Material Cost per Acceptable Part **1062**

Production Rates: **HELP?**

Gross Production Rate **1090**

Rejected Parts: Acceptable Parts Prod Rate. Annual Production Rate

Material and Part Information: **HELP?**

Part Mass * 100 grams **1004** (mass for 1 part only)

Runner Mass * 0 grams **1004** (enter 0 if hot runner system or if reground)

Material Cost * 1 / kilogram **1004**

Process Information: **HELP?**

Number Of Cavities * 1 **1008**

Estimated Cycle Time * 30 Seconds **1010**

Reject Rate * 10% **1014**

% of Rejects Reground * 50% **1016**

Cost Breakdown: **HELP?**

Material Operating (Press) Costs Amortized Costs. Additional Costs. Total Part Cost

Amortized Costs: **HELP?**

Equipment Costs * 0 **1018**

Equipment Amortization Time. * 10 Years **1020**

Mold Cost * 0 **1022**

Mold Amortization Time: * 2 Years **1024**

Shop Costs: **HELP?** **1090**

Plastics Technology

(For U.S. only) [click here](#) to get the rate information

FIGURE 10C

Appl. Ser. No. 10/039,482
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Address http://www.eastman.com/Wizards/PartCostEstimator/PartCostEstimator.asp

Plastics Technology

(For U.S. only) [click here](#) to get the rate information

Operating hours per week: * hours 1060

Project Down Time: * 1026

Machine Cost: * per hour 1028

Additional Cost [HELP?](#)

Secondary Operations: * per part 1030

Overhead Expenses: * per part 1032

Miscellaneous Expenses: * per part 1034

1050

[Printer Friendly Report](#) 1099

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1031 1033 1035

FIGURE 10D

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Address http://www.eastman.com/Wizards/PartCostEstimator/PartCostEstimator.asp?FirstLoad=Yes&Curr=US&CalcType=ReCalc

Wizard
TECHNICAL SOLUTIONS

Injection Molding Part Cost Estimation

EASTMAN

Contact Us How To Use The Wizard Close Window

*=Required Field Printer Friendly Report

Input Values

Descriptions **HELP?**

Company: ABC

Name of part: Name

Description: Description

Material: Plastic

Preferred Currency: US

Predicted Values

Material Cost Estimations: **HELP?**

Material Cost per 50.00 US per
 Part: 1000 parts
 Virgin Material Use 5.13 kilograms
 Rate: per hour
 Material Cost per 52.78 US per
 Acceptable Part: 1000 parts

Material and Part Information **HELP?**

Part
 Mass: * 50 grams (mass for 1 part only)
 Runner
 Mass: * 0 grams (enter 0 if hot runner system or if reground)

Production Rates: **HELP?**

Gross Production 108.00 parts per
 Rate: hour
 Rejected Parts: 10.80 parts per
 hour

Material Cost: * 1 US/kilogram

Recalculate

Process Information **HELP?**

Number Of Cavities: * 1

Estimated Cycle Time: * 30 Seconds

Reject Rate: * 10%

% of Rejects Reground: * 50%

Recalculate

Amortized Costs **HELP?**

Equipment Costs: * 100000 US

Equipment Amortization Time: * 10 Years

Mold Cost: * 10000 US

Mold Amortization Time: * 2 Years

Acceptable Parts 97.20 parts per
 Prod. Rate: hour
 Annual Production 202,731.43 parts
 Rate: per year

Cost Breakdown: **HELP?**

Material: 52.78 US per
 1000 parts
 Operating (Press) 514.40 US per
 Costs: 1000 parts
 Amortized Costs: 73.99 US per
 1000 parts
 Additional Costs: 110.00 US per
 1000 parts
 Total Part Cost: 751.17 US per
 1000 parts

FIGURE 10E

Appln. Ser. No. 10/039,482
SOFTWARE ENABLED WIZARDS
Inventors: BASSETT et al.
Express Mail No. EV 032 196 431 US

10039482 . 042502

Injection Molding Part Cost Estimation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

Wizard TECHNICAL SOLUTIONS **Injection Molding Part Cost Estimation** **EASTMAN**

Close Window 1093 Print this Page 1040

06-Nov-2001 7:28 PM Eastern Time(GMT-5:00)

Input Values

Descriptions

Company: ABC
Name of part: Description
Description: Description
Material: Plastic
Preferred Currency: US

Material and Part Information

Part Mass: 50 grams
Runner Mass: 0 grams
Material Cost: 1 US per kilogram

Process Information

Number Of Cavities: 1
Estimated Cycle Time: 30 Seconds
Reject Rate: 10 %
% of Rejects Reground: 50 %

Amortized Costs

Equipment Costs: 100000 US
Equipment Amortization Time: 10 Years
Mold Cost: 10000 US
Mold Amortization Time: 2 Years

Shop Costs

Operating hours per week: 40
Project Down Time: 10 %
Machine Cost: 50 US per hour

Additional Cost

Secondary Operations: 2 US per part
Overhead Expenses: 4 US per part
Miscellaneous Expenses: 5 US per part

Predicted Values

Material Cost Estimations:

Material Cost per Part: 50.00 US per 1000 parts
Virgin Material Use Rate: 5.13 kilograms per hour
Material Cost per Acceptable Part: 52.78 US per 1000 parts


Production Rates:

Gross Production Rate: 108.00 parts per hour
Rejected Parts: 10.80 parts per hour
Acceptable Parts Production Rate: 97.20 parts per hour
Annual Production Rate: 202,731.43 per 1000 parts

Cost Breakdown:

Material: 52.78 US per 1000 parts
Operating (Press) Costs: 514.40 US per 1000 parts
Amortized Costs: 73.99 US per 1000 parts
Additional Costs: 110.00 US per 1000 parts
Total Part Cost: 751.17 US per 1000 parts

Total Cost Predicted



Material Cost - 7.0264%
Operating Cost - 68.4788%
Amortized Cost - 9.8500%
Additional Cost - 14.6448%

1093 Close Window 1040

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FIGURE 10F

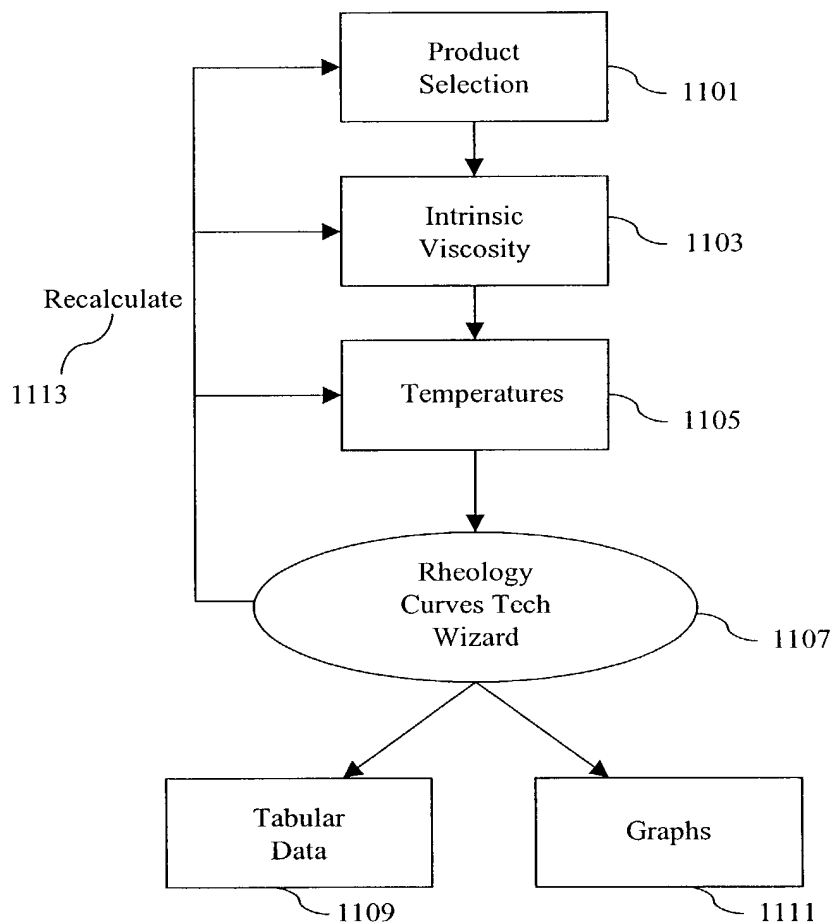
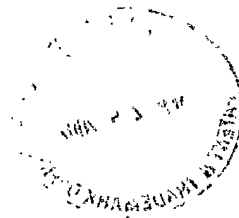


FIGURE 11A

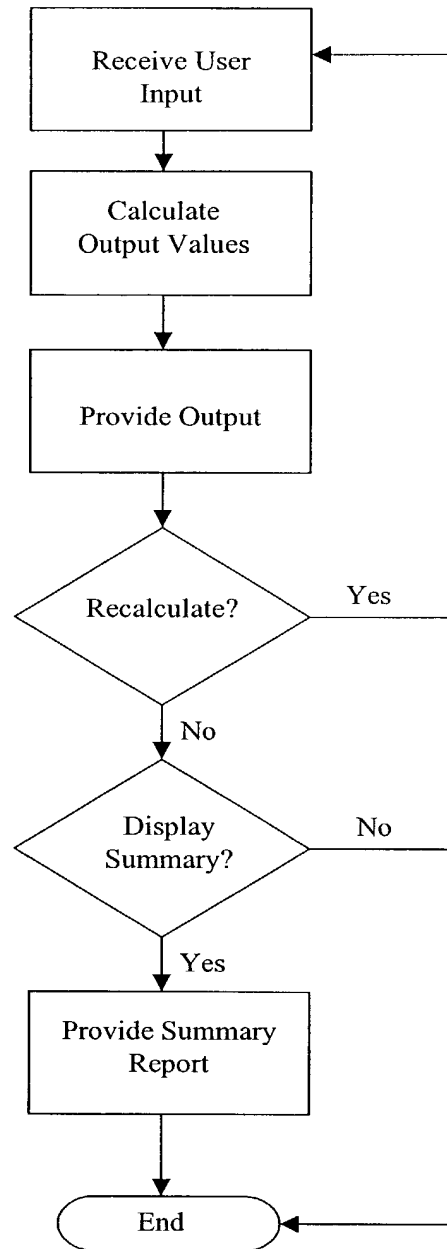


FIGURE 11B

10039492 042502

Appln. Ser. No. 10/039,482
SOFTWARE ENABLED WIZARDS
Inventors: BASSETT et al.
Express Mail No. EV 032 196 431 US

Rheology Curves and Data 1100

EASTMAN

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How To Use The Wizard 1112

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***=Required Field**

Product Group: * **Select a Product Group** 1102

Product: * **Select a Product** 1104

Click here to Continue 1106

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1131 1133 1135

FIGURE 11C

10039492 042502
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Rheology Curves and Data - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

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Address http://www.eastman.com/Wizards/RheologyCurves/Rheology.asp

Wizard
TECHNICAL SOLUTIONS

Rheology Curves and Data

EASTMAN

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*=Required Field Printer Friendly Report

Product Group: **EASTAPAK PET** Product: **EASTAPAK AQUA Polymer 18696**
1160 Click Here to view the Product Information, MSDS, etc.

1140

Input Parameters **HELP?** **Shear Rate and Viscosity** **HELP?**

Intrinsic Viscosity (dl/g): * 0.71
Temperature 1 (°C): * 1142 285
Temperature 2 (°C): 1144 0
Temperature 3 (°C): 0
1120 Calculate 1146

Shear Rate (s ⁻¹ or r/s)	Viscosity (P) at Temperature
1	0.0
10	0.0
100	0.0
400	0.0
1000	0.0
4000	0.0
10000	0.0

1190

Met Viscosity of EASTAPAK PET

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Done Internet

FIGURE 11D

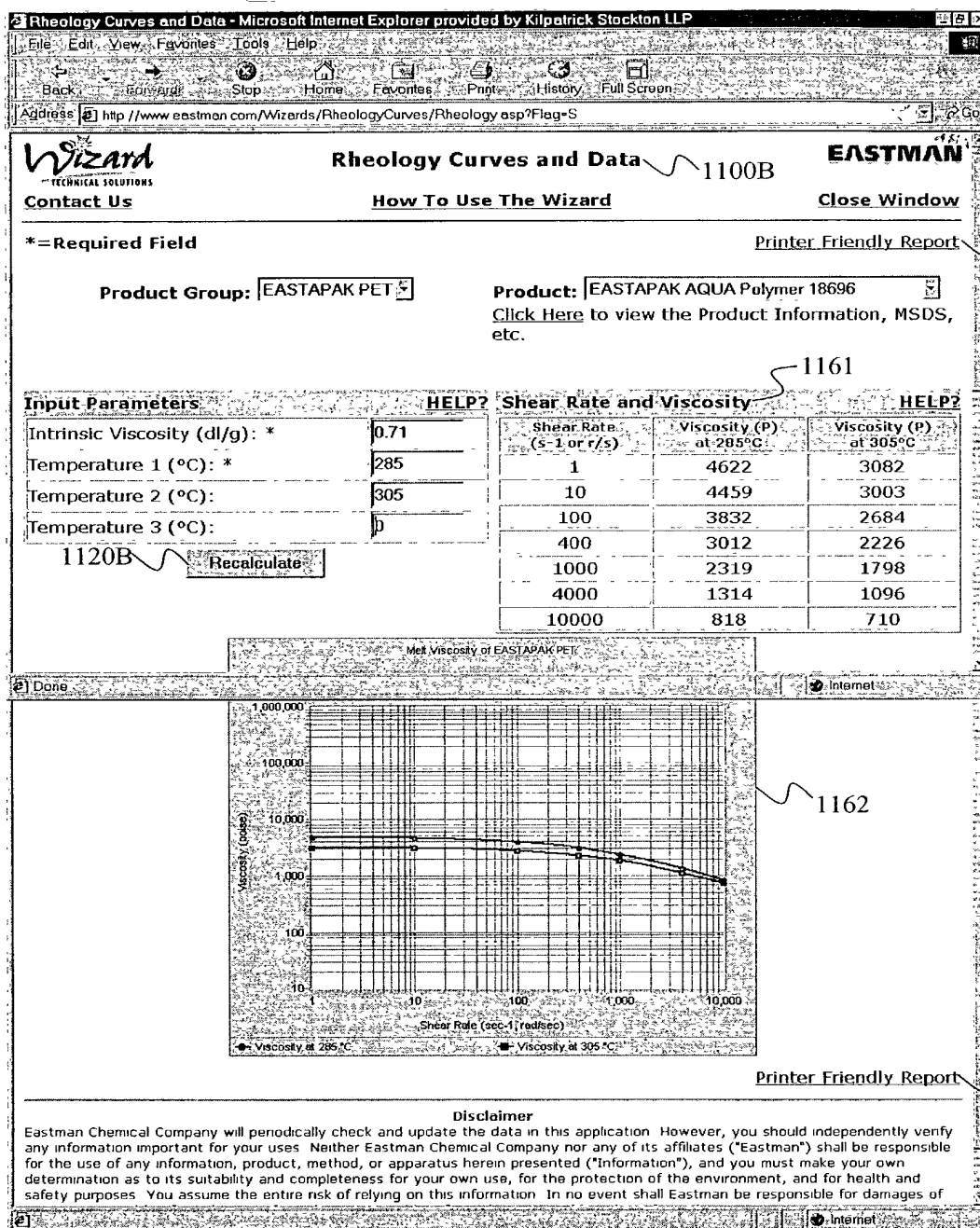


FIGURE 11E

Appln. Ser. No. 10/039,482
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 Express Mail No. EV 032 196 431 US

10039482 .042502

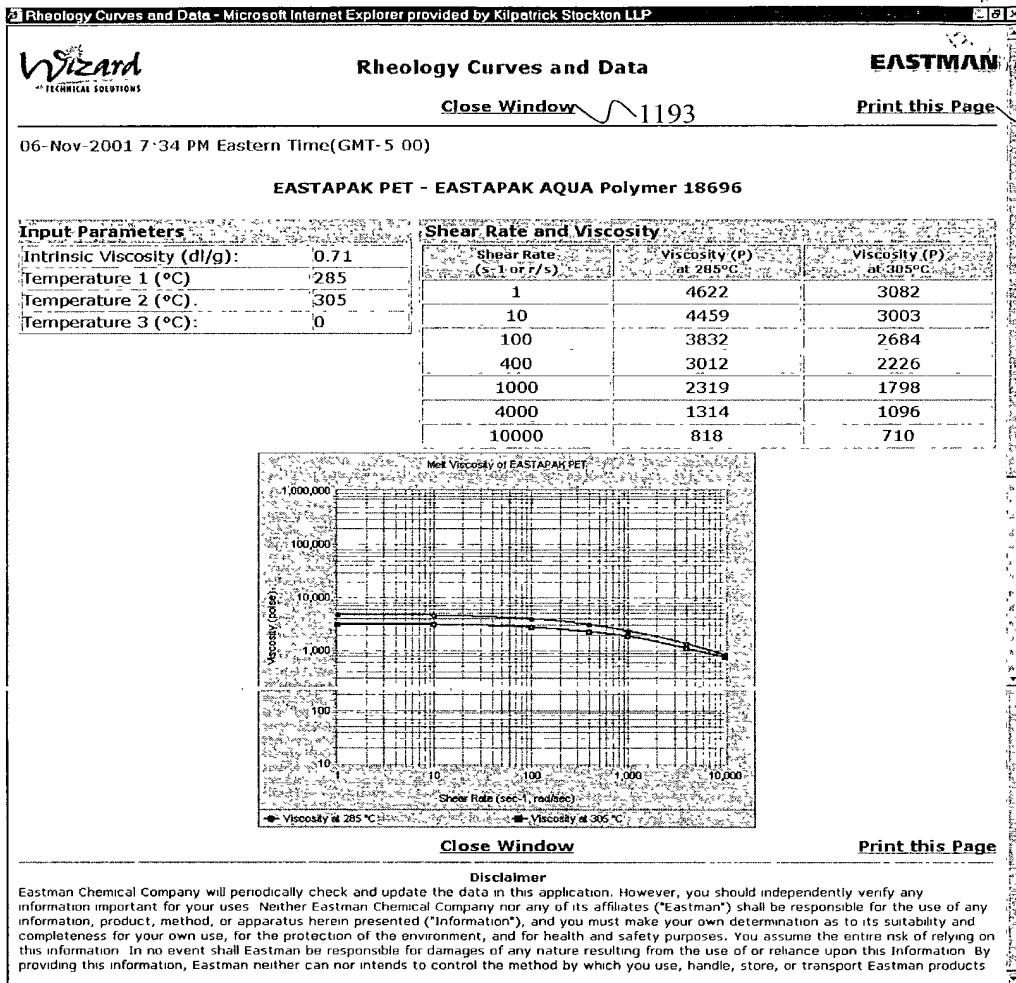


FIGURE 11F

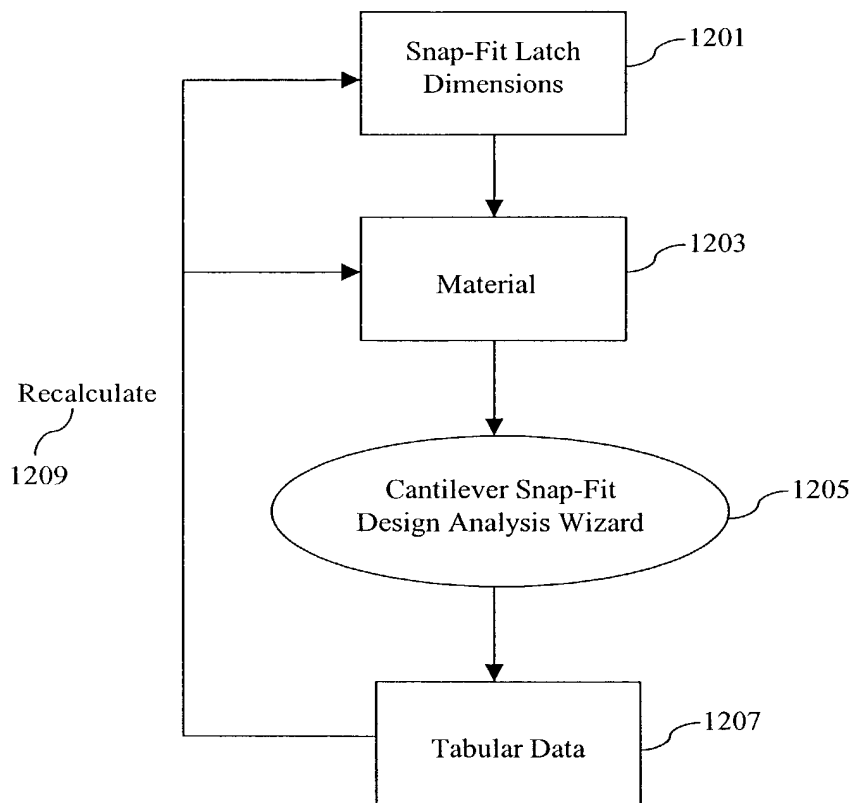
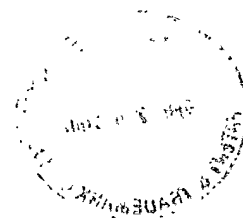


FIGURE 12A

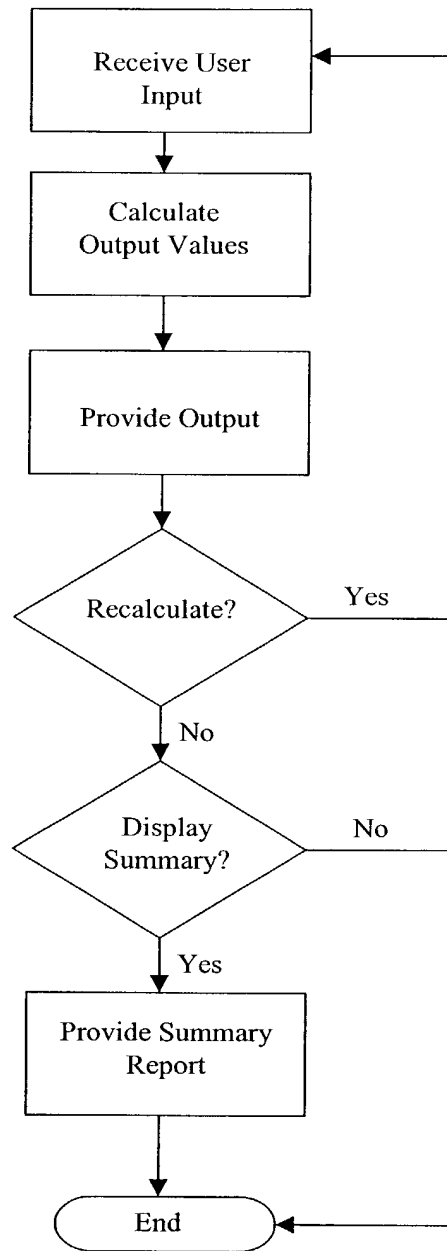


FIGURE 12B

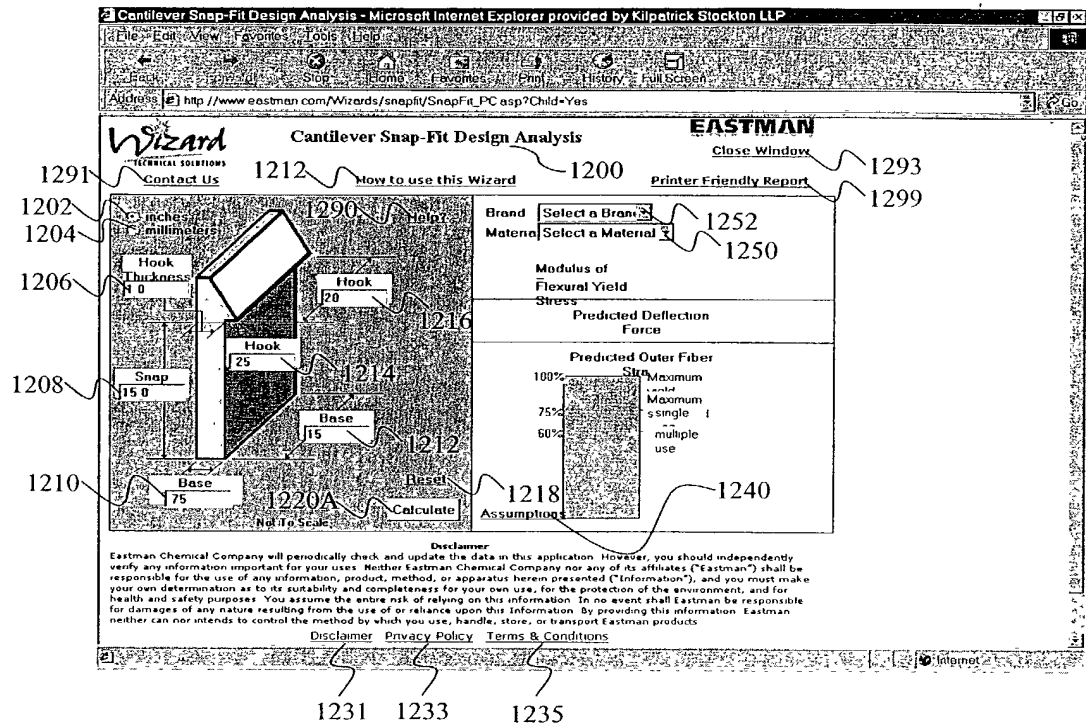


FIGURE 12C

Appln. Ser. No. 10/039,482
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Inventors: BASSETT et al.
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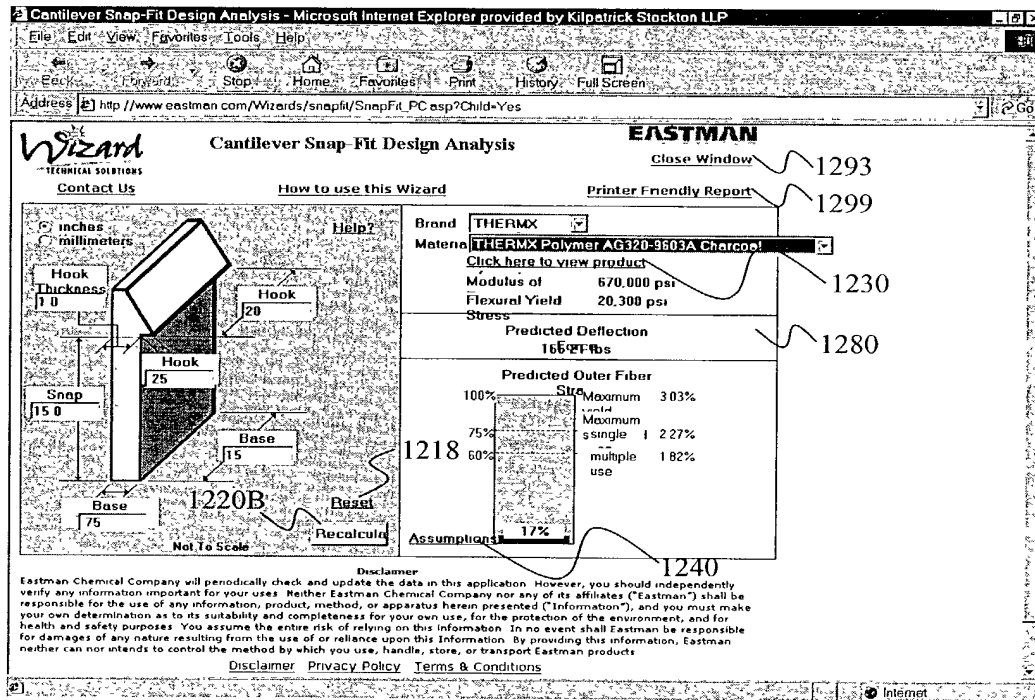


FIGURE 12D

Appln. Ser. No. 10/039,482
SOFTWARE ENABLED WIZARDS
Inventors: BASSETT et al.
Express Mail No. EV 032 196 431 US

10039482 . 042502

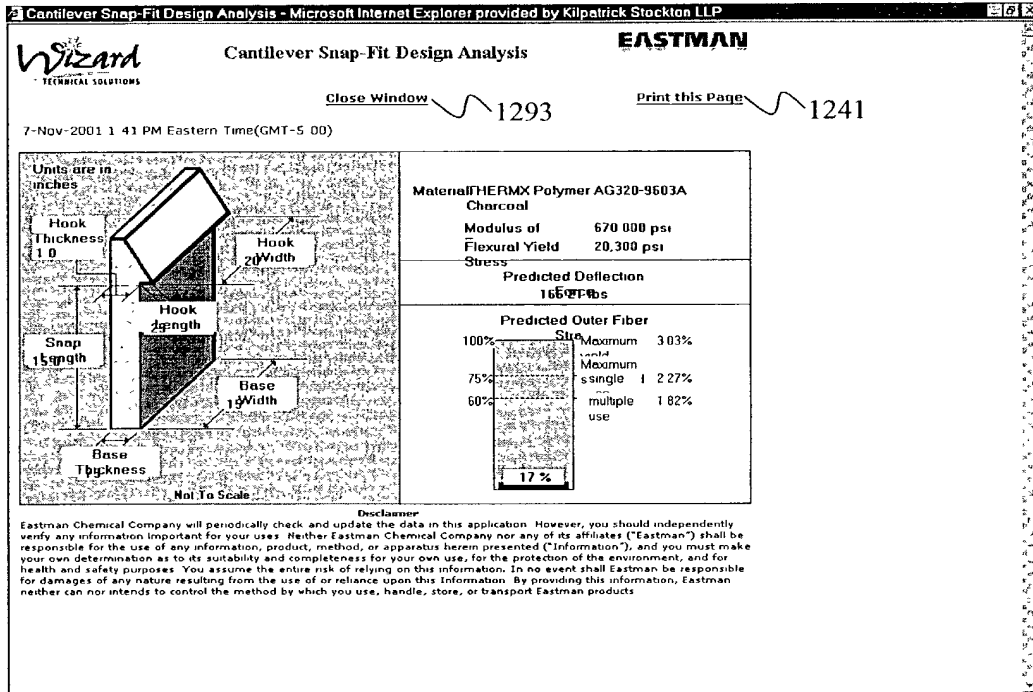
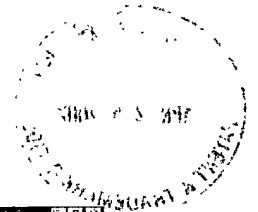


FIGURE 12E

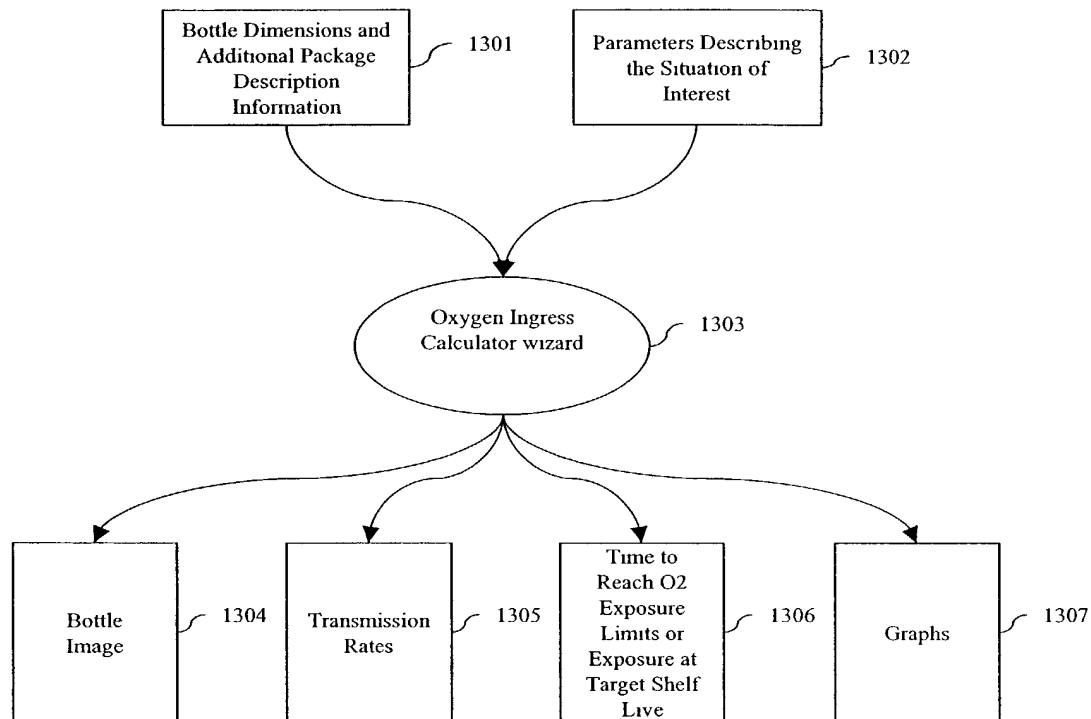
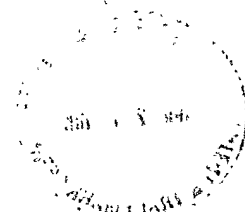


FIG. 13A

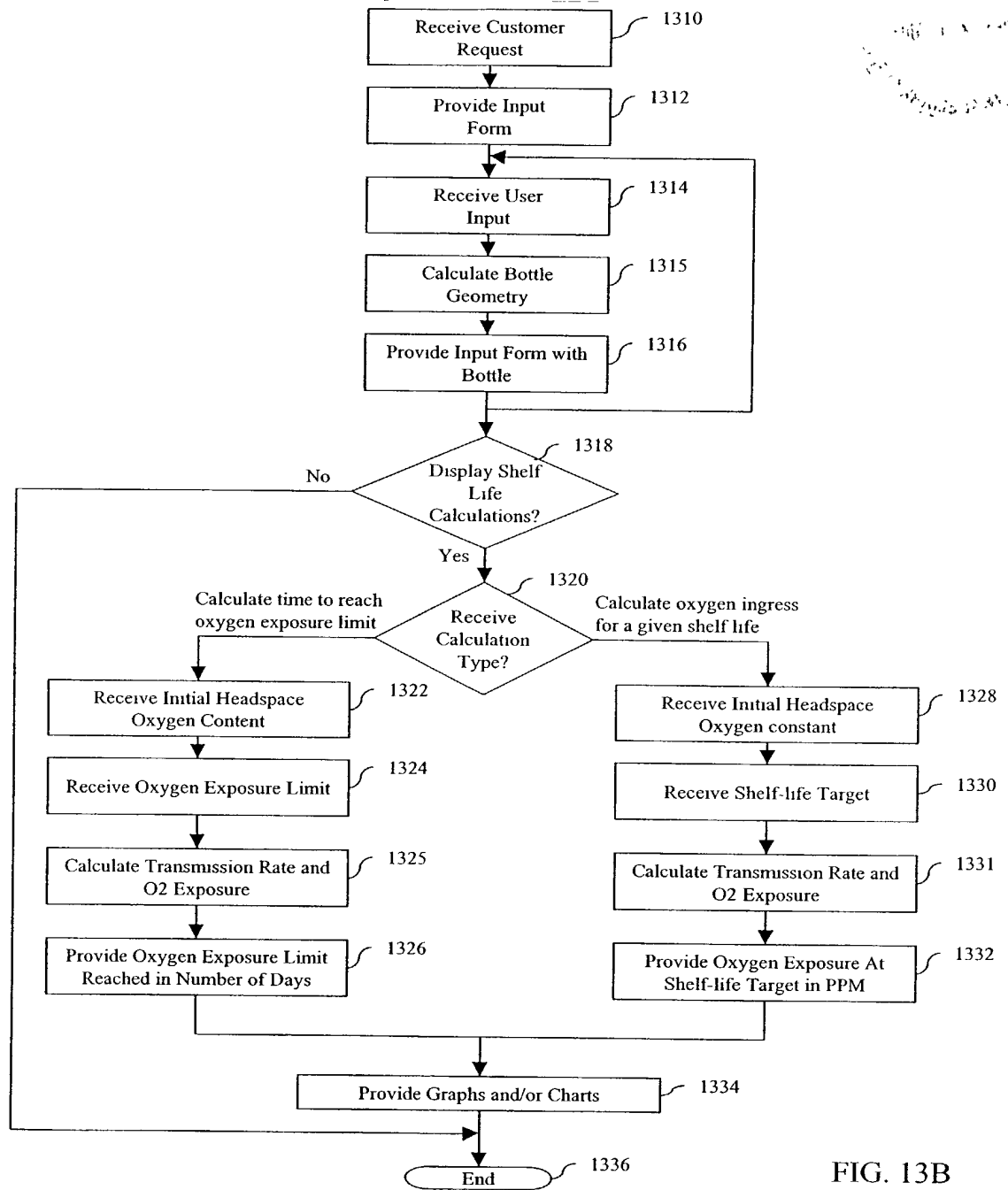
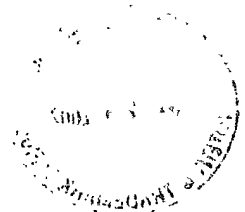


FIG. 13B



Wizard **Oxygen Ingress Calculator for PET Monolayer Containers** **EASTMAN**
 Contact Us How To Use The Wizard Close Window

*=Required Field

Container Specifications		HELP?
Container Volume: *	500 ml	
Container Type *	Select Container Type	
Headspace Volume:	ml	
Container Weight: *	25.9 grams	
Diameter *	69.5 mm	
Sidewall Ht/Shoulder Ht: *	2	
Finish Diameter: *	Select Finish Diameter	
Closure Type: *	Select Closure Type	

1354

Dsw=Diameter of Sidewall; Hb=Height of Base Hsw=Height of Sidewall, Hsh=Height of Shoulder

1356 Draw Bottle

Click here for Conversion Table

Assumptions Click here for Shelf Life Calculations

FIG. 13C

1358 **Select Option** **HELP?**

Calculate Time To Reach Oxygen Exposure Limit	c
Calculate Oxygen Ingress For A Given Shelf Life	c

1360 **Input Parameters** **HELP?**

Initial Head Space Oxygen Content *	2 %
Oxygen Exposure Limit: *	15 ppm

1366 Recalculate

1362 **Output Parameter** **HELP?**

Oxygen Exposure Limit Reached	124.2 days
-------------------------------	------------

1364

1368

1370

FIG. 13D

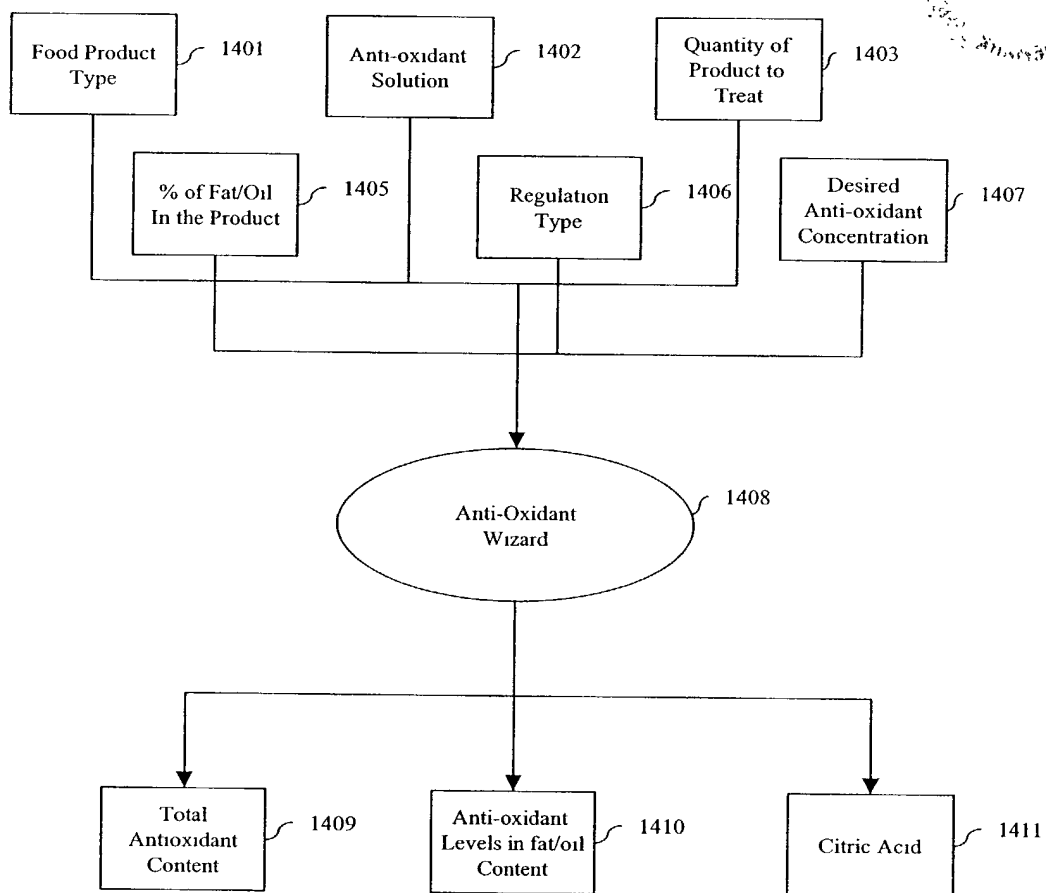


FIG. 14A

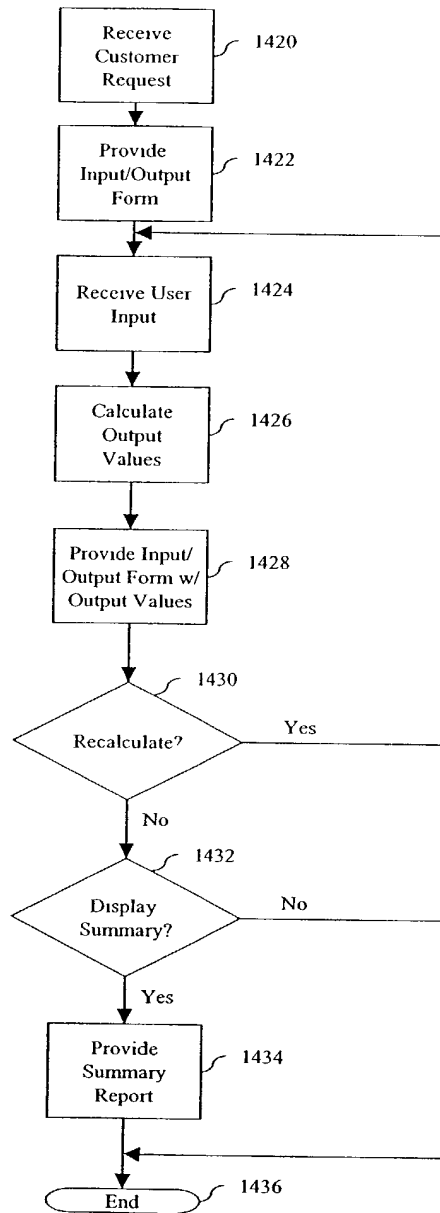
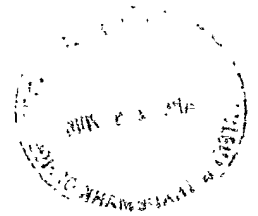


FIG. 14B

Appln. Ser. No. 10/039,482
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Inventors: BASSETT et al.
Express Mail No. EV 032 196 431 US

10039482.042502



1450

Antioxidant Calculator - Microsoft Internet Explorer

Address: http://eastmen/Wizards/Prototype/AntiOxidant/AntiOxiMain.asp

Wizard TECHNICAL SOLUTIONS **Antioxidant Calculator** **EASTMAN**

[Contact Us](#) [How To Use The Wizard](#) [Close Window](#)

*=Required Field Click here to see a listing of [Recommended Tenox Products](#) for various Applications

Input Parameters	HELP?
Food Product *	Select One
Tenox Product to be used: *	1000
Quantity of Food Product to treat *	Select One
Weight units *	100
Fat/oil percentage in food product *	FDA
Regulation to be used *	
Total Antioxidant Concentration desired *	ppm
Do you wish to convert the Antioxidant weight to volume. *	<input type="radio"/> Yes <input type="radio"/> No

Antioxidant levels in fat/oil content

BHA

BHT

1452

IBHQ

Propyl Gallate

Total Antioxidant Level

Citric Acid

Amount of Tenox 6 to apply

Done

Local intranet zone

FIG. 14C

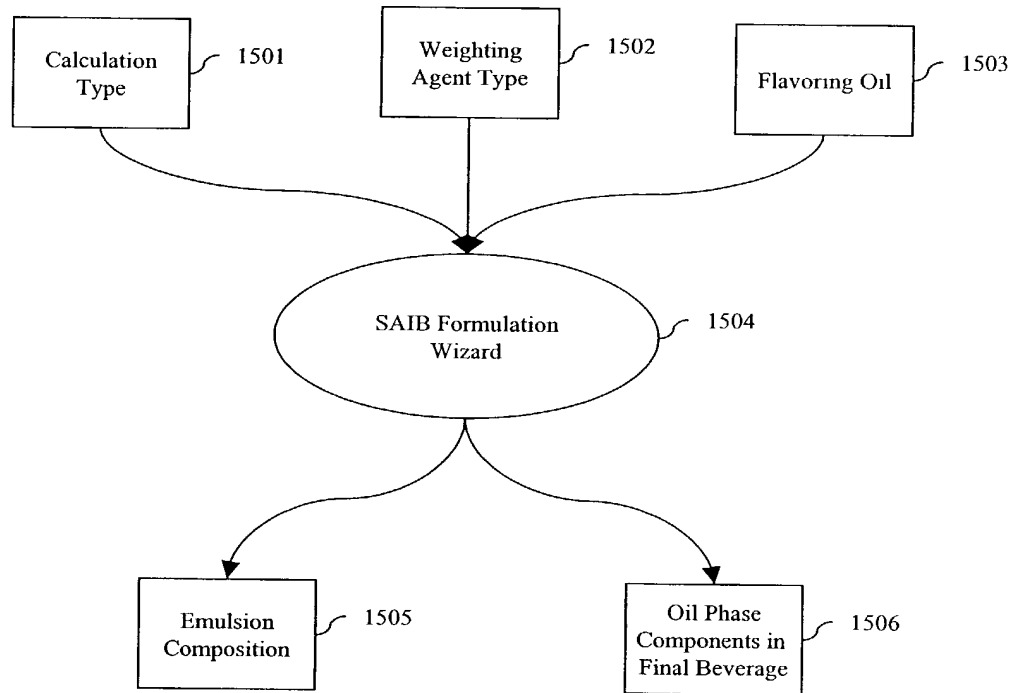


FIG. 15A

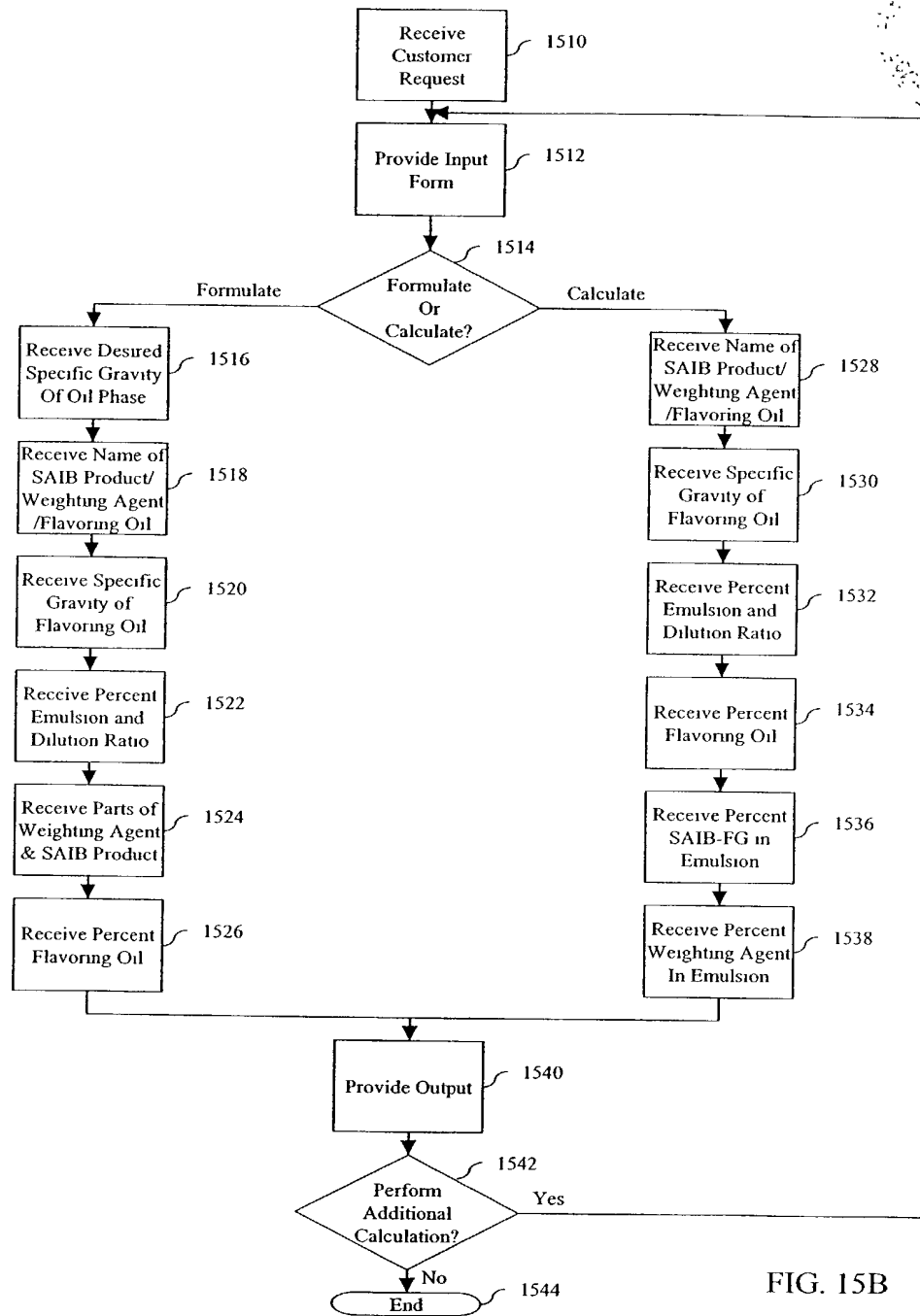
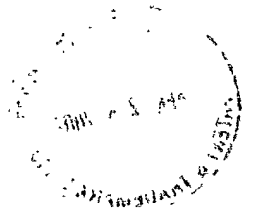


FIG. 15B

Appln. Ser. No. 10/039,482
SOFTWARE ENABLED WIZARDS
Inventors: BASSETT et al.
Express Mail No. EV 032 196 431 US

10039492, 042502



http://eastman/wizards/prototype/saibformulation/SAIBInfo.asp - Microsoft Internet Explorer

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SAIB Beverage Formulation

EASTMAN

How To Use The Wizard Close Window

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To access the online Eastman SAIB-FG brochure, click here [Eastman SAIB-FG Brochure](#)
For additional information about Eastman SAIB, click here [SAIB The Oldest New Ingredient](#)
For information on regulations, click here [Regulatory Status of SAIB](#)

Federal Register listing for SAIB [SAIB Federal Register Excerpt](#)
For additional information about specific SAIB products, click here. [Eastman SAIB Products Information](#)

General Information

Enter Project Description: **HELP?**

Enter Sample description: * Orange flavored Emulsion

Do you wish to: (Choice 1) formulate to a desired oil phase specific gravity or (Choice 2) calculate an oil phase specific gravity from existing ratios of oil and weighting agents? Choice 1

Choice 1	HELP?	Intermediate values
Enter desired specific gravity of oil phase: *	<input type="text"/>	Dilution ratio 390 1
Select name of SAIB product: *	<input type="text"/> Select One	Specific Gravity of Weighting agent 0.00
Select name of additional weighting agent: *	<input type="text"/> Select One	Specific Gravity of SAIB Product 0.00
Enter name of flavoring oil to be used: *	<input type="text"/>	Percent SAIB in SAIB Product 0 %
Enter specific gravity of flavoring oil: *	<input type="text"/>	Specific Gravity of Weighting Agent(s) 0.00
		Ratio of weighting agents to oil 0 1

Done Local File

FIG. 15C

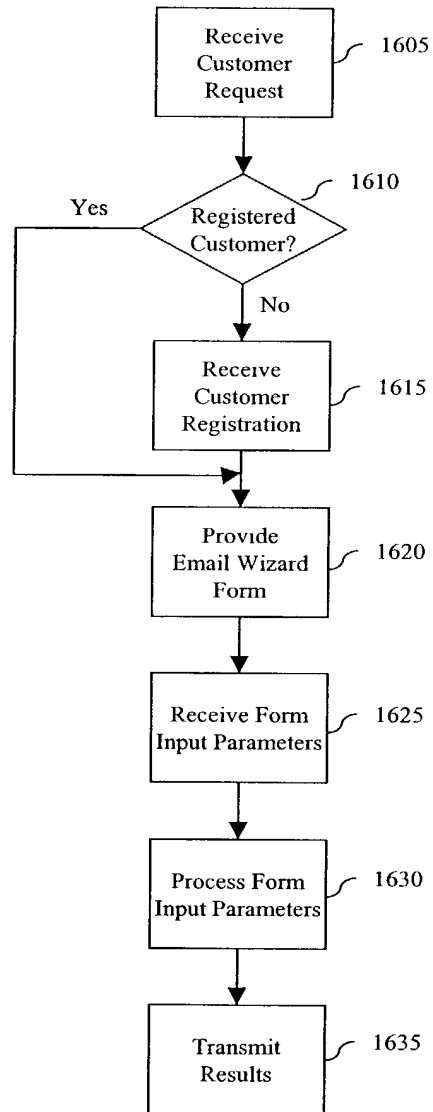


FIG. 16

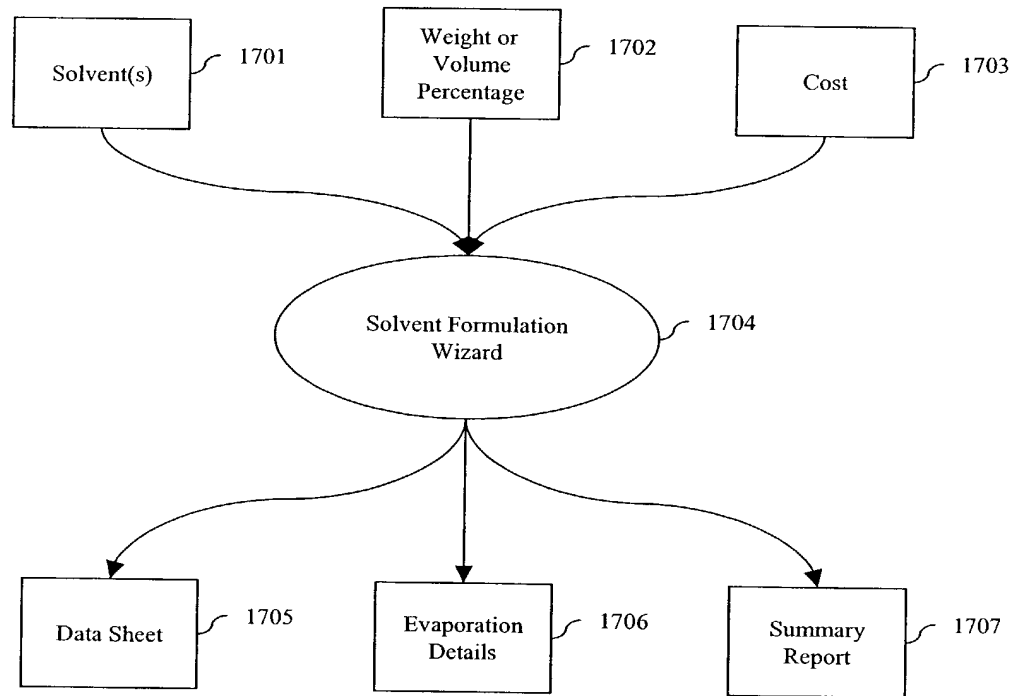
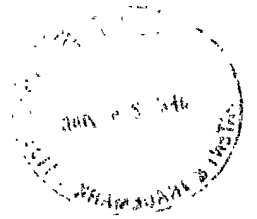


FIG. 17A

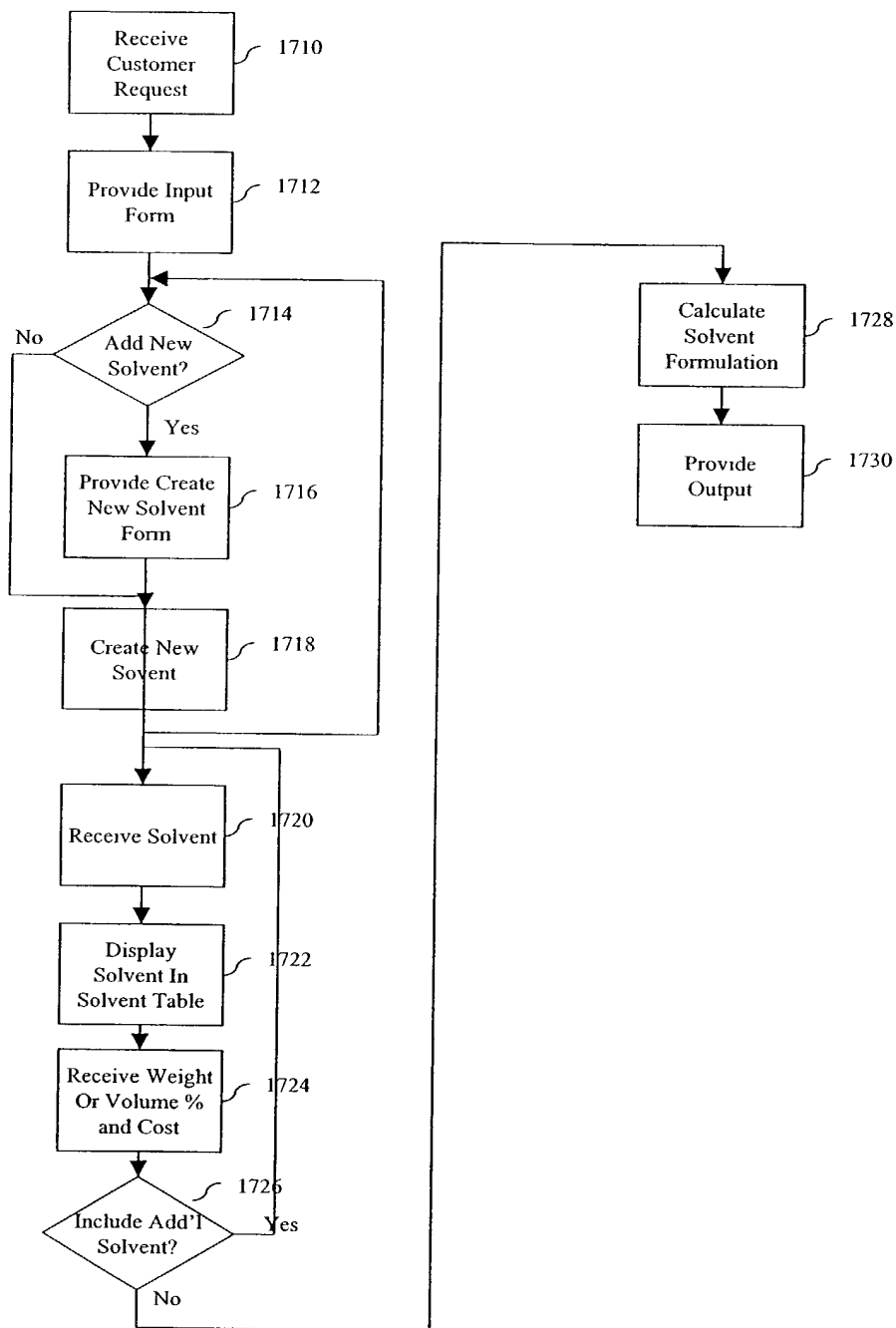


FIG. 17B

Solvent Reformulation - Microsoft Internet Explorer

WIZARD
EASTMAN

Solvent Selection

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FIG. 17C

Solvent Reformulation - Microsoft Internet Explorer

WIZARD
EASTMAN

Add New Solvent

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1766

FIG. 17D

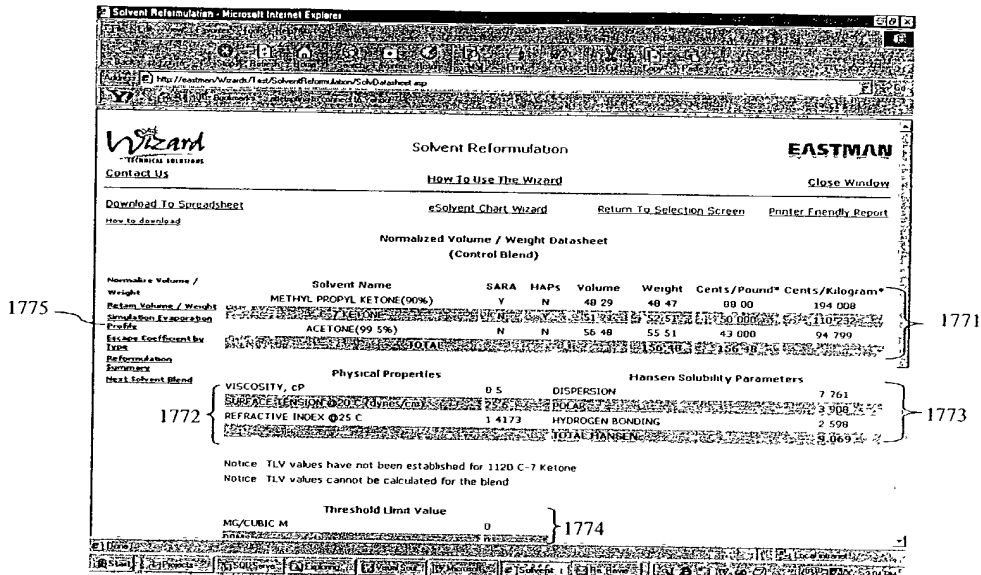


FIG. 17E

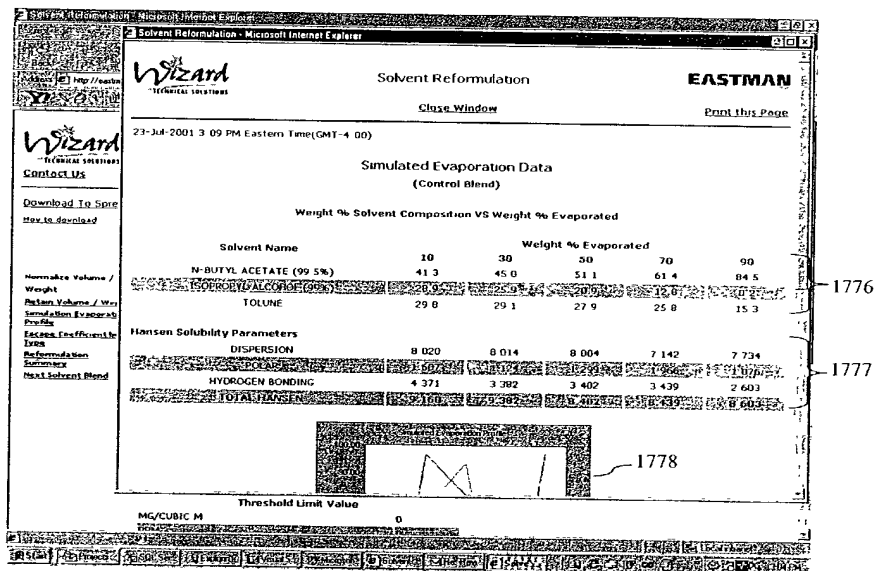


FIG. 17F

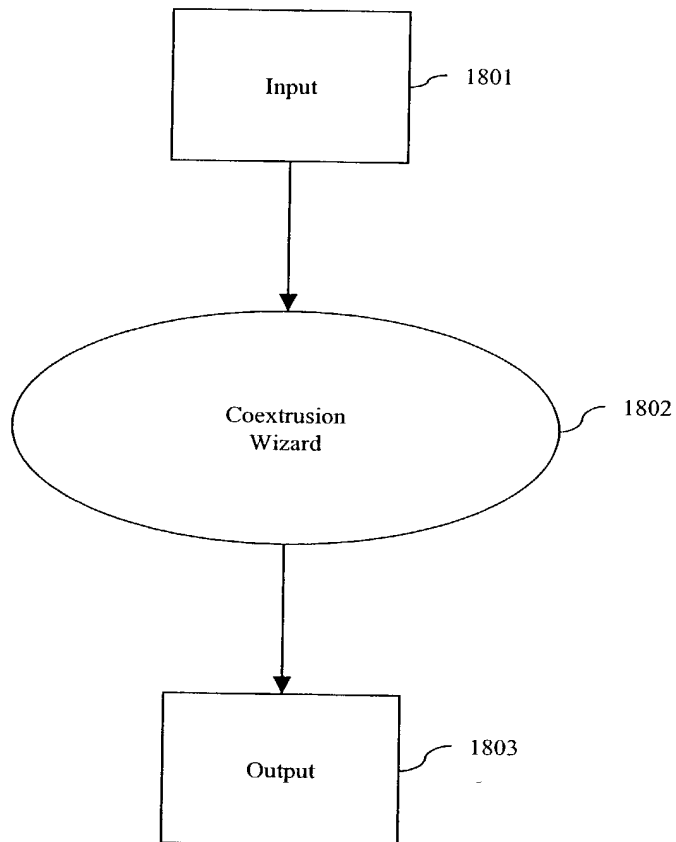
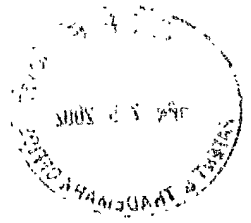
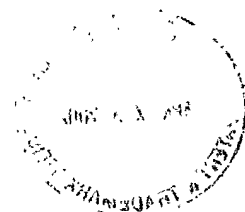


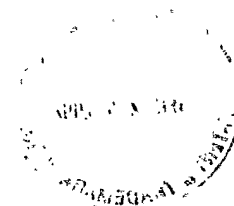
FIG. 18

10039482 . 042502
Appln. Ser. No. 10/039,482
SOFTWARE ENABLED WIZARDS
Inventors: BASSETT et al.
Express Mail No. EV 032 196 431 US



Compare Search Help	
Solvents Selection Criteria For a list of all solvents select 'All' for each criteria and click Create Report .	
Supplier: <input type="radio"/> All <input type="radio"/> Eastman	Flash Point: <input type="radio"/> All <input type="radio"/> Non-Flash ($\geq 60.5^{\circ}\text{C}$ (141°F)) <input type="radio"/> Flash ($< 60.5^{\circ}\text{C}$ (141°F))
Evaporation Rate: <input type="radio"/> All <input type="radio"/> Fast (≥ 3.0) <input type="radio"/> Medium (3.0 - 0.6) <input type="radio"/> Slow (0.6 - 0.12) <input type="radio"/> Very Slow (< 0.12)	Water Solubility: <input type="radio"/> All <input type="radio"/> Soluble <input type="radio"/> Insoluble
Nitrocellulose Solubility: <input type="radio"/> All <input type="radio"/> Active <input type="radio"/> Latent <input type="radio"/> Diluent	HAPS: <input type="radio"/> All <input type="radio"/> Eastman non-HAPs
Sort By: <input type="radio"/> Name <input type="radio"/> Flash Point <input type="radio"/> Evaporation Rate	Chemical Grade: <input type="radio"/> All <input type="radio"/> Urethane <input type="radio"/> Trace Metals (< 10 ppb)
Create Report Reset Criteria Return to e-Solvent Home Page	

FIG. 19A



Sort By:
☒ Name ☐ Flash Point
☐ Evaporation Rate

Solvents Report			
Selection Criteria: Sorted By Name, Supplier = Eastman, Flash Point = Flash (<60.5°C (141°F)), Evap Rate = Fast (>=3.0), Water = All, Nitrocellulose = All, HAPS = All, Chemical Grade = All			
Solvent	Eastman Product?	Evaporation Rate, nBuOAc = 1	Flash Point
EASTMAN Acetone, High Purity Sales Grade	Yes	6.3	-20°C (-4°F)
EASTAPURE Ethyl Acetate	Yes	4.1	-4°C (24°F)
EASTMAN Ethyl Acetate, 85-88%	Yes	4.2	-3°C (27°F)
EASTMAN Ethyl Acetate, Urethane Grade	Yes	4.1	-4°C (24°F)
EASTMAN Isopropyl Acetate	Yes	3	2°C (35°F)
EASTMAN Methyl Acetate	Yes	6.0	-13°C (9°F)
EASTMAN Methyl Acetate	Yes	6.0	-15°C (9°F)
EASTMAN Methyl Acetate	Yes	6.0	-13°C (5°F)
EASTMAN Methyl Acetate	Yes	6.0	-15°C (5°F)

[Return to Selection Page](#)

[Printer Friendly Report](#)

FIG. 19B

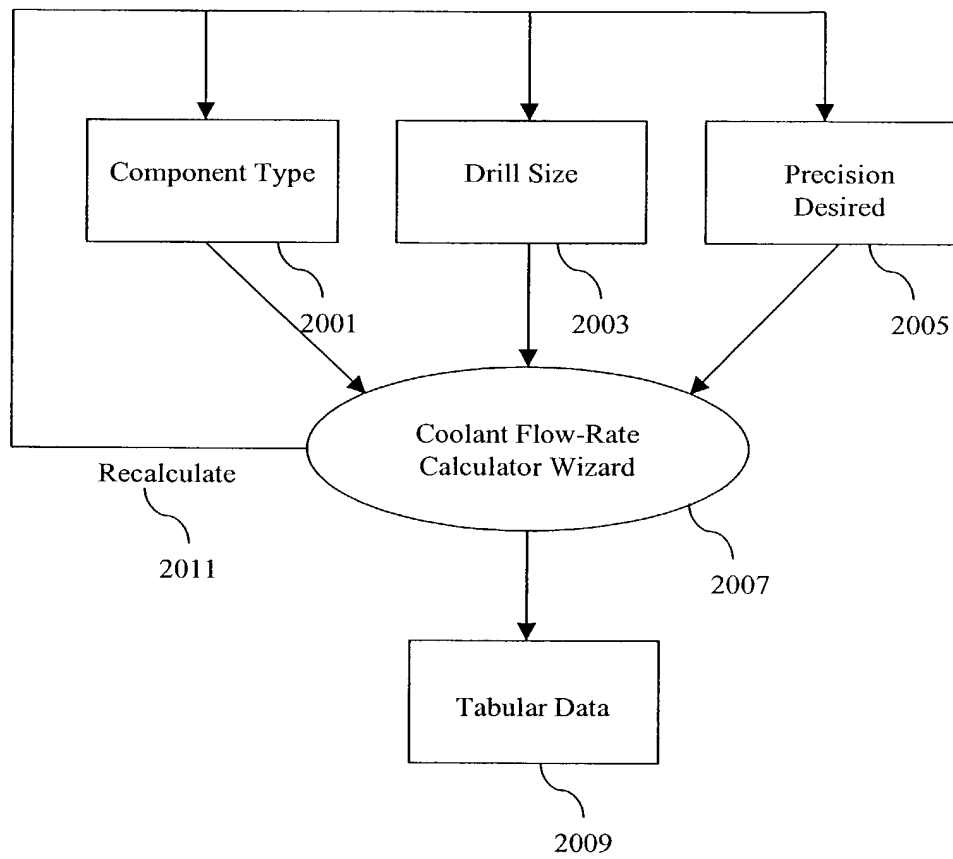


FIGURE 20A

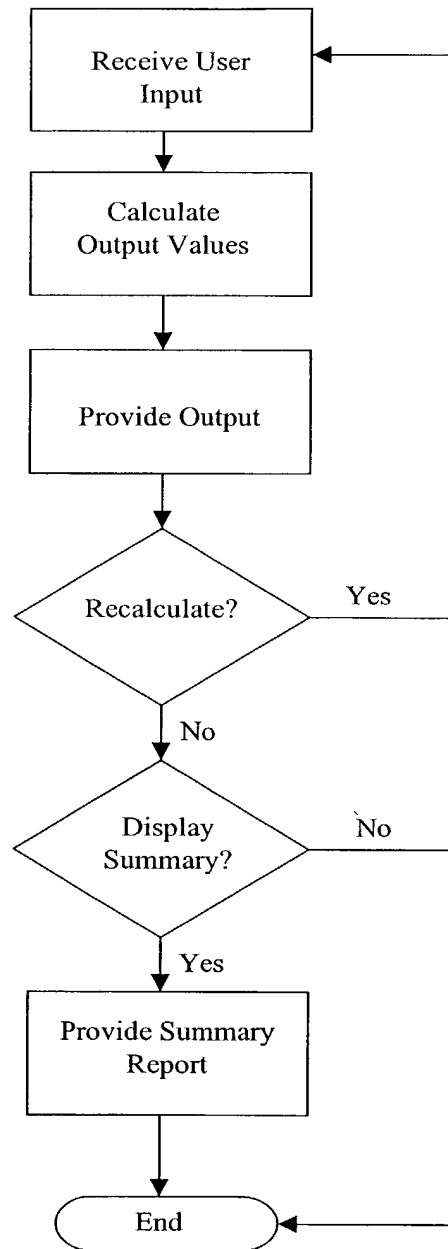


FIGURE 20B

Flow Rate Calculator - Microsoft Internet Explorer, provided by Kibotrick, Stockton LLP

File Edit View Favorites Tools Help

Address http://www.eastman.com/Wizards/flowrate/FlowRatePC.asp

Wizard TECHNICAL SOLUTIONS **2000** **EASTMAN** Close Window **2093**

Coolant Flow Rate Calculator

2091 Contact Us **2012** How to use this Wizard

Select the desired component calculation: channel, baffle, or bubbler:

2002 Channels **2020** Select Pipe (Drill) S

2004 Baffles **2040** Select (Drill) S

2006 Bubblers **2060** Select OD/ID (Drill) S

Precision (Significant Digits) **2** **2014**

2075 Calculate Minimum water flow rate to achieve turbulent flow

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2031 **2033** **2035**

FIGURE 20C

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 Express Mail No. EV 032 196 431 US

10039482.042502

Flow Rate Calculator - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

Address http://www.eastman.com/Wizards/flowrate/FlowRatePC.asp

Wizard **2000B** **EASTMAN**
 TECHNICAL SOLUTIONS Close Window

Contact Us How to use this Wizard Printer Friendly Report 2099

Channel Baffle Bubbler
 3/8 (0.578) Select (Drill) Select OD/ID (Drill)

Precision (Significant Digits) 2 2014

2075B ReCalculate

Minimum water flow rate to achieve turbulent flow 2080

Component = Channel; Selected Value = 3/8 (0.578); Precision = 2

Water Temperature (F)	Minimum Flow Rate (gpm)
40	1.69
50	1.44
60	1.23
70	1.08
80	0.94
90	0.83

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FIGURE 20D

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Express Mail No. EV 032 196 431 US

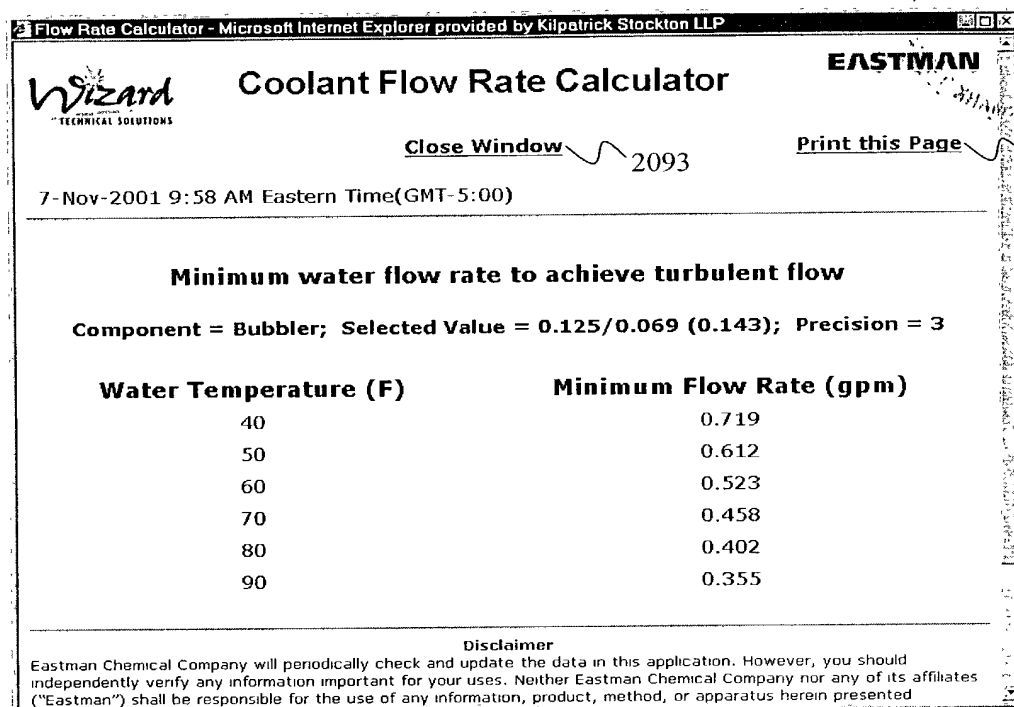


FIGURE 20E